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ABSTRACT

One of four being published on a five-state project on the dynamics of child care subsidy use, this report provides a detailed look at families receiving child care subsidies in Illinois, Maryland, Massachusetts, Oregon, and Texas, and the factors associated with length of subsidy receipt and provider stability. Data were collected and analyzed by a team of policy and methodology experts brought together through the Child Care Policy Research Consortium. State policy data were collected through document reviews and interviews with key informants. Micro-data were obtained from state child care subsidy administrative systems. Payment record files were also obtained for services during 24 calendar months in each state. Among the major findings is that the exercise of policy discretion at the state level has produced very different child care subsidy programs. The populations served in the various subsidy systems differed by income, the proportion of subsidized families that were employed, and the proportion mixing work and welfare. States also varied in the types of services provided to subsidized families and children. The length of children's subsidy receipt was short in all states. Within states, the length of subsidy receipt varied with some family characteristics, and there was considerable reentry into the subsidy system. Most children with short periods of subsidy receipt had a consistent provider. Subsidy receipt periods were influenced by the interactions of child care subsidy, TANF, and regulatory policies rather than by any single

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child care policy. The report concludes with a discussion of the implications of the findings for research and policy. Two appendices provide information on the data, measures, and analytic approaches and on additional state child care subsidy policies. (Contains 33 endnotes.) (KB)

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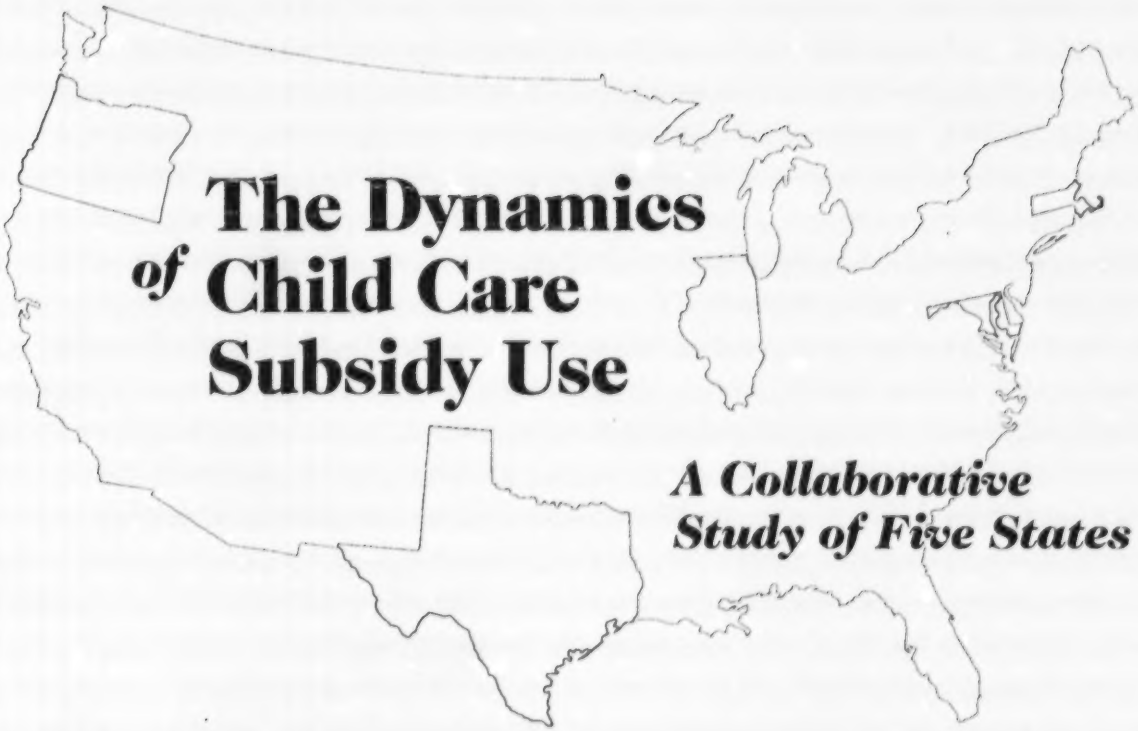

The Dynamics of Child Care Subsidy Use

A Collaborative Study of Five States

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A Collaborative Study of Five States

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July 2002

Child Care Policy Research Consortium and the Five-State Dynamics Study Team

To better inform child care policymaking, the Child Care Bureau of the Administration for Children and Families in the U.S. Department of Health and Human Services in 1995 began funding Child Care Policy Research Partnerships. These partnerships use or build upon existing data to increase understanding of child care markets for low-income families and the impact of child care policies on them. Several of the partnerships have constructed linked, longitudinal data sets with administrative data from states' subsidy systems. These data sets create new opportunities to analyze the characteristics of children and families who use child care subsidies and the dynamics of their subsidy participation.

The Child Care Policy Research Partnerships include state policymakers, state- and city-level agencies responsible for child care services, and university-based researchers. These teams are charged with developing a research agenda in response to pressing policy questions in their states. The Partnerships work together as the Child Care Policy Research Consortium.

This report is a product of consortium members representing Illinois, Maryland, Massachusetts, and Oregon who joined together to better understand who is served by child care subsidy systems and what services they receive. Researchers in Texas, who were already engaged in similar research, agreed to join the project. The five-state child care subsidy dynamics study team included policy experts familiar with each of the five states and analysts familiar with administrative data and analytic methods. State agency partners played a critical role in helping to understand data elements and policies in each state and provided feedback on the study results and interpretations. The team member partner institutions are:

- Columbia University School of Social Work
- Linn-Benton Community College
- National Center for Children in Poverty, Columbia University Mailman School of Public Health
- Oregon State University
- Ray Marshall Center for the Study of Human Resources, University of Texas at Austin

The Dynamics of Child Care Subsidy Use: A Collaborative Study of Five States

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4

TABLE OF CONTENTS

Executive Summary 5

SECTION 1
Introduction 10
Background: Welfare and Child Care Reforms 10
This Study 11

SECTION 2
Overview: Study Design, Data, and Methods 13
Research Questions 13
Data 13
Measures 14
Analyses 14

SECTION 3
The Policy Context 16
Income Eligibility Ceilings 16
TANF Policies 18
Family Copayments 19
Payments to Providers 20
Summary: Characterizing State Policy Regimes 22

SECTION 4
Populations Served and Services Received 25
Characteristics of Populations Served 25
Characteristics of Services Provided 29
Summary: Characterizing State Subsidy Populations and Services 32

SECTION 5
Dynamics of Subsidy Use 34
Length of Time Children Receive Subsidies 34
Reentry to the Subsidy System 38
Stability of Care Arrangements 40
Discussion: Dynamics of Subsidy Use 41

SECTION 6
Understanding Variation in Subsidy Dynamics 43
Multivariate Analyses 43
Qualitative Analysis 44

SECTION 7
Conclusions and Implications 47
Conclusions 47
Implications for Research 48
Implications for Policy 50

Appendix 1
Data, Measures, and Analytic Approaches 51

Appendix 2
Additional State Child Care Subsidy Policies 54

Endnotes 60

List of Tables

Table 1: Selected Elements of Child Care Subsidy Eligibility Rules, by State (1997 to 1999) 17
Table 2: Selected Elements of TANF Policy, by State (1997 to 1999) 18
Table 3: Copayment Policies, by State (1997 to 1999) 19
Table 4: Provider Payment Rates, by State (1997 to 1999) 21
Table 5: Characteristics of Families Receiving Subsidies (First Month of First Observed Spells Starting During Observation Period), by State 26
Table 6: Characteristics of Services Received by Families (First Month of First Observed Spells Starting During Observation Period), by State 29
Table 7: Characteristics of Services Received by Families (First Month of First Observed Spells Starting During Observation Period), by State 30
Table 8a: Kaplan-Meier Estimates of Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State 34
Table 8b: Change in Estimated Length of Subsidy Receipt in Months (First Observed Spell Starting During July 1997 to June 1998 vs. July 1998 to June 1999), by State 36
Table 9a: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Parent Activity 36
Table 9b: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Age of Child 37
Table 9c: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Type of Care 38
Table 10: Cumulative Percent of Children Exiting Subsidy Spell Who Return Within Three, Six, Nine, and 12 months, by State 39
Table 11: Stability of Provider-Child Relationships, by State 40
Table A.1.1: Financing Streams Included in Study Data, by State (1997 to 1999) 51
Table A.1.2: Number of Observations in Analysis Samples, by State (1997 to 1999) 52
Table A.2.1: Administrative Structures, by State (1997 to 1999) 55
Table A.2.2: Financing Structures and Expenditures, by State (1997 to 1999) 57
Table A.2.3: Child Care Regulations 58

List of Figures

Figure 1: Subsidy Eligibility Ceilings Relative to State Median Monthly Income (1998) 17
Figure 2: Copayment Rules Relative to Monthly Family Income (Three-person family with one adult and two children) 20
Figure 3: Maximum Payment Rate Relative to 75th Percentile of Market Rate, Full-Time Center Care for a Four-Year-Old Child 22
Figure 4: Maximum Payment Rate Relative to 75th Percentile of Market Rate, Full-Time Family Child Care for a Four-Year-Old Child 23
Figure 5: Maximum Payment Rate for Various Types of Care, Full-Time Care for a Four-Year-Old Child 23
Figure 6: Family Income of Subsidy Recipients Relative to State Median Income (1998) 26
Figure 7: Median Family Income of Subsidy Recipients Relative to Initial and Continuing Eligibility Ceilings (1998) 27
Figure 8: Activity Status, Mothers of Subsidized Children 27
Figure 9: Age of Child in Subsidized Care (One randomly Selected Child Per Family) 28
Figure 10: Primary Care Arrangement for Child in Subsidized Care (One Randomly Selected Child per Family) 29
Figure 11: Median Net Value of Subsidies (Family Level) Relative to Median Income of Subsidy Recipients (1998) 31
Figure 12: Survival Rate—First Observed Spell Starting During Observation Period 35
Figure 13: Survival Rate, First Observed Spell Beginning During Observation Period, by Parent Activity 37
Figure 14: Survival Rate, First Observed Spell Beginning During Observation Period, by Type of Care 39

Publications by the Child Care Subsidy Dynamics Team

This report is one of four being published by members of the team studying the dynamics of child care subsidy use. It provides a detailed look at families receiving child care subsidies in five study states—Illinois, Maryland, Massachusetts, Oregon, and Texas—and the factors associated with length of subsidy receipt and provider stability. Separate state reports are also being issued for Illinois, Maryland, and Oregon.

A duration study guide is also being prepared to enable others to conduct their own studies on the dynamics of child care subsidy use using the methodology developed through this five-state study. The guidebook was created as a stand-alone, practical guide that documents the methods and lessons learned to support study replication. The *Duration Study Guidebook: A Guide to Implementing a Study on the Dynamics of Child Care Subsidy Use,* by Deana Grobe, Roberta B. Weber, and Elizabeth E. Davis will be available from the Oregon Child Care Research Partnership Web site after September 1, 2002 (http://www.lbcc.cc.or.us/familyresources/researchpartner/).

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This study is part of a five-state project on the dynamics of child care subsidy use. The project is a collaborative team effort; thus this paper reflects the effort and input of team members studying each of the five states.

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EXECUTIVE SUMMARY

Background and Research Questions

The federal welfare-reform legislation enacted in 1996, the Personal Responsibility and Work Opportunity Reconciliation Act, gave states and communities new challenges and new opportunities for meeting the needs of low-income families and children. The intensity of these challenges and the importance of these opportunities are especially striking in policies for subsidized child care. In developing subsidy policies, both federal and state policy officials have had to act in the absence of good information about subsidy use among low-income families. Although some (but not all) states are able to use administrative data to obtain basic information about the population using subsidies at a point in time, they have been unable to extend these analyses to examine in great depth the characteristics of families or their patterns of child care use.

Of particular importance, cross-sectional data have not provided information about the dynamics of subsidy use. Given persistent low earnings, parents leaving welfare (and other low-skilled working parents) are likely to remain eligible for means-tested child care assistance for a relatively long period. At the same time, however, their participation in short-term employment preparation activities, turnover in employment, and variable earnings may make it difficult for these families to remain continuously eligible for subsidy assistance. Burdensome application and recertification processes may create additional barriers to continuous subsidy receipt. For parents, instability in subsidy receipt may mean the difference between keeping and losing a job, and, for those employed, between self-sufficiency and poverty. For children, instability in subsidy receipt may contribute to instability in care arrangements, which developmental experts identify as a risk to healthy socioemotional development.

To advance knowledge and understanding about the dynamic use of child care subsidies, this study used data from five states (Illinois, Maryland, Massachusetts, Oregon and Texas) to address the following questions about child care subsidy use and cross-state variation:

- What are the characteristics of children and families who receive subsidies?
- What services do subsidized children and families in these states receive?
- How *continuous* is subsidy receipt; i.e., how long do spells of subsidy receipt last?
- What is the *duration* of subsidy use; i.e., how likely is it that children who end a spell of subsidy receipt subsequently begin another?
- How *stable* are children's care arrangements while they are in the subsidy system?

Data and Methods

This study used data collected and analyzed by a team of policy and methodological experts brought together through the Child Care Policy Research Consortium. The Child Care Policy Research Partnerships include child care policymakers, practitioners, and researchers from each of several states. These teams are charged with developing a research agenda in response to pressing policy questions in their states. For this study, consortium members representing Illinois, Maryland, Massachusetts, and Oregon joined together to build a collaborative, cross-state research design. Researchers in Texas, who were already engaged in similar research, agreed to join the project. Researchers from each of the states met together several times over a two-year period to develop comparable data sets and to design and interpret data analyses. The research team included policy experts familiar with each of the five states and analysts familiar with administrative data and analytic methods. State agency partners played a critical role in explaining data elements and policies in each state, and provided valuable feedback on the study results and interpretations.

State policy data were collected through document reviews and interviews with key informants in each

state. Micro-data were obtained from state child care subsidy administrative systems. Payment record files were obtained for services during 24 calendar months in each state, typically for the period of July 1997 to June 1999. In four of the five states, these data sets included information on all families that were served in the states' voucher-based subsidy programs during this period. (The data set for Massachusetts included information on about one-half of voucher recipients).

Analysts first constructed comparable variables in each of the five state data files and then reconfigured the data sets into longitudinal files. Analysis samples were constructed by randomly selecting one child from each family that participated in the subsidy system during the observation period. A "spell" of subsidy receipt was measured as the number of continuous months of receipt by the selected child, preceded and followed by a month of nonreceipt. The first analyses use descriptive statistics to compare the characteristics of children and families served in the five states and of the services provided. Researchers next compared the *continuity* of subsidy receipt across the states, and across groups within states, by estimating the length of the first observed spell of subsidy receipt. The Kaplan-Meier survival analysis procedure was used to adjust for incompletely observed or right-censored periods of receipt (that is, cases in which the child received a subsidy in the last month of the observation period, because researchers do not know whether the child continued to receive a subsidy). The study team compared the likely *duration* of total receipt by examining rates of reentry to the subsidy system following the end of a subsidy spell. The *stability* of child care arrangements *while children are subsidized* was assessed by comparing the number of different providers that children experienced during their time in the subsidy system.

The strength of the study is that it uses child care administrative data for all or a significant proportion of all children who ever used child care subsidies during a two-year period in each state. Analyzing the universe of subsidy cases allows researchers to describe the characteristics of subsidy recipients and the dynamics of their subsidy use with great accuracy. Comparing these characteristics and dynamics across states allows the researchers to observe state-level variation that may result from child care, TANF (Temporary Assistance for Needy Families—the federal cash assistance program that replaced Aid to Families with Dependent Children in 1996), and other public policies.

One of the principal limitations of the study is the exclusive reliance on one source of administrative data. Administrative data are collected by systems designed to determine eligibility and process payments; they are not designed with research purposes in mind. The child care subsidy payment records used as data for this study did not include information on families once they left the subsidy system or the reason for their exit; this limited the team's ability to evaluate transitions out of the subsidy system. These data also lacked individual-level variables that could be used for multivariate analyses of subsidy dynamics. The analysis team experimented with both single-state and pooled, hierarchical regression analyses. The main finding from these analyses is that the effect of predictor variables varied across states; i.e., the association between the length of subsidy receipt and factors such as child and service characteristics is not constant. The lack of exogenous measures of family and policy characteristics precluded estimating reliable multivariate models. Families' decisions to participate in the subsidy program and their employment and child care decisions are so closely intertwined that separating out causal factors is a challenging task and requires data that were not available in this study.

Summary of Major Findings

- **The exercise of policy discretion at the state level has produced very different child care subsidy programs in different states.**
- **States served different populations in their subsidy systems.**
  - Median incomes among subsidized families in different states ranged from 12 percent of the state median income in Texas to 24 percent in Illinois.
  - The proportion of subsidized families that was working and not receiving TANF ranged from 15 percent in Illinois to 55 percent in Texas.
  - The proportion of subsidized families that was mixing work and welfare ranged from 5 percent in Oregon to 71 percent in Illinois.

Families' decisions to participate in the subsidy program and their employment and child care decisions are so closely intertwined that separating out causal factors is a challenging task and requires data that were not available in this study.

- **States provided different services to subsidized families and children.**
  - The median incomes of families receiving subsidies ranged from only 16 percent of the state eligibility ceiling in Texas to 51 percent of the ceiling in Illinois.
  - The proportion of subsidized children whose main care arrangement was center-based ranged from 18 percent in Oregon to 79 percent in Texas.
  - The proportion of subsidized families who were exempted from copayments ranged from 10 percent in Illinois to 85 percent in Massachusetts.
  - The median value of copayments (among families who paid them) ranged from $29 per month in Maryland to $67 per month in Oregon.
  - The median net value of child care subsidies (provider payments minus family copayments) ranged from 21 percent of the median income of subsidized families in Illinois to 76 percent in Massachusetts.

- **The length of children's spells of subsidy receipt was short in all states and varied across the states.**
  - In all states, spells of subsidy receipt ended for one-half or more of the children within seven months.
  - The median length of subsidy spells ranged from a low of three months in Oregon to a high of seven months in Texas.

- **Within states, the length of subsidy spells varied with some family characteristics.**
  - In four of the five states, children whose parents were employed and not receiving TANF at the start of the spell had longer spells of child care subsidy receipt than children with nonworking TANF-recipient parents.
  - In all states, the length of subsidy spells varied by one to two months for children who started the spell in alternative care arrangements. No consistent pattern emerged in the type of care arrangement associated with shorter or longer spells across states.

- **There was considerable reentry to the subsidy system.**
  - In all states, at least one-third of children who exited a spell of subsidy receipt began a subsequent spell of assistance within 12 months; the proportion of children returning to the subsidy system within 12 months ranged from 35 percent in Texas to 58 percent in Maryland.
  - For children who returned to the subsidy system within 12 months, subsequent spells of receipt were no longer than their first observed spells.

- **Most children who had short spells of subsidy receipt had a consistent provider during their months of receipt. Approximately one-half of children receiving subsidies for at least one year had one or more transitions in their primary provider.**

- **Spell length appears to be affected by interactions of child care subsidy, TANF, and regulatory policies rather than by any single child care policy. Some policies were associated with variation in spell length in the direction that would be predicted by theory and child care research.**
  - Spells of subsidy receipt were shorter in states that required some or all families to recertify eligibility more often than every six months.

- **Other policies did not have the anticipated association with child care subsidy continuity. This may be due, in part, to the interaction of multiple state policies.**
  - The generosity of the ceiling for continuing eligibility was not consistently associated with the length of subsidy spells, in part because the population of families served in several states had incomes well below the eligibility cutoff.
  - The level of copayments required of families was not consistently associated with length of subsidy spells across the five states. Families may

leave the subsidy system before reaching the high levels of copay, as few of the observed families had incomes high enough to be subject to the highest levels of copay imposed by the states.

  - The generosity of payments to providers was not consistently associated with continuity, which may be due to the reduction in the "net" value of assistance to families once copayments were imposed.

- **Cross-state variation in subsidy continuity may also be due to policies that influence the mix of families served in each state.**
  - The observed length of subsidy spells was longer in states that had a higher proportion of working families in their subsidized populations, in part because children in these families had longer spells of receipt than children in fully TANF-reliant families.
  - Although variation in state TANF and other policies may explain a portion of the overall cross-state variation in length of subsidy spells (through their influence on the mix of families in the subsidy system), it cannot fully explain cross-state variation in subsidy continuity among families with similar characteristics.

This study provides new information about the dynamics of subsidy use in these five states. Due to the limitations of the data, the findings are largely descriptive. The administrative data used in this study did not permit more extensive analysis of the factors that explain variation in subsidy dynamics among families or across states. They did not include, for example, family characteristics (such as education) and circumstances (such as prior employment) that are likely to have influenced participation in the subsidy system. Even more importantly, they did not include data on changes in family circumstances in the months following the end of a subsidy spell. The research team could not determine whether a spell of subsidy receipt ended for a positive reason—such as an increase in earnings—or for more problematic reasons—such as the loss of a job, the loss of a child care provider, or difficulties with the recertification process. These data constraints sharply limited the team's ability to model, in a multivariate context, the factors associated with the length of subsidy receipt.

Conclusions and Implications

The diversity of the populations served and the diversity of the services provided across the five states are two of the most striking findings of this study. The devolution of already highly decentralized child care subsidy programs in the 1990s increased opportunities for state policymakers to determine who receives subsidies, what types of providers are subsidized, how much providers are paid, and what portion of costs are paid by families. One consequence of these policy choices is that states serve very different populations of families in their subsidy systems. A second consequence of these policy choices is that states now provide varying types and levels of service to families.

One common characteristic across these states was the low level of continuity in subsidy assistance. Many children also reentered the subsidy system, although the rate of reentry varied and did not exceed 60 percent in any state. The duration and stability of subsidy assistance varied across the five states. The median length of subsidy spells ranged from three to seven months, and the proportion of children returning to the subsidy system within 12 months ranged from 35 to 58 percent.

Because the data for this study did not reveal why children left the subsidy system, it is difficult to interpret these findings. Short subsidy spells and churning in and out of the system may be due to the episodic nature of parents' employment activities or to problems associated with child care arrangements or subsidy receipt. Regardless of the reason, the lack of continuity and short duration of subsidy assistance is of concern. It is unlikely that parents who were poor enough to qualify for subsidies had achieved a level of self-sufficiency such that they no longer needed subsidies within the few months that their children received assistance. Indeed, the fact that as many as one-half of children returned for a subsequent spell of subsidy assistance within one year suggests that many parents remained eligible for assistance.

It is clear that variation in the dynamics of subsidy use cannot be explained by any single child care policy. Variation in state TANF policies may explain some of the cross-state variation in the length of assistance, through its influence on the mix of fami-

Currently, the assistance families receive is not very continuous, does not last very long, and may be associated with substantial turnover in their children's care arrangements.

lies in the subsidized population. Other state policies may also explain some of this cross-state variation in subsidy dynamics by creating incentives or barriers to participation.

These analyses raise a number of questions for future research. The lack of continuity and frequency of reentry to the subsidy system deserve further research, both to describe the dynamics of subsidy receipt and to identify factors that are associated with more stable subsidy experiences.

These analyses also raise a number of cautions and suggestions for future research. This is one of the few studies to use administrative data from the child care subsidy systems and one of the only studies to use data from the child care systems of multiple states. A key methodological insight of the study concerned the potential noncomparability of variables and effects across states. Some of this noncomparability is due to different measurement techniques. Other data elements were not fully comparable because they had very different implications in different policy contexts.

These issues of noncomparability raise two important cautions for future research in this area. First, it is critical for researchers using administrative data sets from multiple states to understand what the data elements measure. This requires both a detailed knowledge of the administrative processes through which the data were collected and used, and a detailed knowledge of the relevant policies in each state. Second, there is no reason to assume *a priori* that variables will have a constant association across states. As both the parallel and pooled, multi-level analyses for this study found, different parameter estimates were obtained in different states for the same variable. This raises important cautions about pooling data for analysis without accounting for the possibility that the true parameters, or underlying associations, vary across states or sites.

The results of this study do not provide specific lessons for the development of child care subsidy policy. The sample of five states was too small, and the administrative data sets too limited, for the study team to identify policies that hinder or support families' use of subsidies. The results do suggest, however, two areas of concern for future policy.

The first concern relates to equity. Social policy devolution is often praised as a mechanism for increasing local political control and responsiveness. It is just as often criticized because it eliminates national standards and due process protections for applicants and clients who are often socially and economically vulnerable. This tension is apparent in child care subsidy policies. As these results suggest, essentially similar families have different likelihoods of receiving assistance, depending on the state in which they live. Once they are in the system, families have different service options, and face different costs and benefits, depending on where they live. This raises important questions about whether the public child care subsidy system is providing assistance equitably to needy families.

The second concern relates to the specific dynamics observed in this study. A number of studies have documented low and variable rates of participation in child care subsidy programs among the low-income populations of different states. This study suggests that in addition to having trouble accessing subsidy assistance, low-income families may be having trouble retaining that assistance. One of the clearest conclusions from decades of research on welfare dynamics and the employment of low-educated workers is that mothers in the low-wage job sector experience both high levels of job instability and low levels of earnings growth over time. This suggests that low-income families exiting welfare, and other working poor families, are likely to need child care subsidy assistance for a long period of time. The results of this study suggest that, currently, the assistance families receive is not very continuous, does not last very long, and may be associated with substantial turnover in their children's care arrangements. These dynamics do not bode well either for families' economic security or for children's healthy socioemotional development.

SECTION 1

INTRODUCTION

The federal welfare-reform legislation enacted in 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA, P.L. 104-193), presented states and communities with new challenges and opportunities for meeting the needs of low-income families and children. The intensity of these challenges and the importance of these opportunities are especially striking in subsidized child care policy. In the period following welfare reform, the employment rate of mothers with young children continued its decades-long rise, with particularly sharp increases among single and never-married mothers. The rise in maternal employment has increased the need for child care and for child care assistance among low-income families. At both the federal and state levels, policymakers are confronting the challenge of meeting these needs. Due to limitations in data and research, policymakers often formulate policies with only an imperfect understanding of the dynamics of child care use among low-income families.

Background: Welfare and Child Care Reforms

The centerpiece of PRWORA was the creation of Temporary Assistance for Needy Families (TANF). The TANF block grant replaced Aid to Families with Dependent Children (AFDC), the federal program which guaranteed cash assistance for needy families with children. The TANF legislation gave states more flexibility in structuring their cash assistance programs while imposing two important restrictions: all adults who receive federal cash assistance must engage in work activities within two years, and individuals can receive assistance for no more than 60 months in their lifetime.

In addition to reforming the federal cash assistance program, PRWORA combined four categorical federal child care subsidy programs into a new Child Care and Development Fund (CCDF) block grant. The block grant removed most federal rules for child care subsidy assistance and gave states both a larger pool of federal funding and greater flexibility in deciding how to spend these funds. States, which already exercised substantial control over child care services and regulation, were given new authority to design and deliver child care assistance to low-income families. States now set policy governing which families are eligible for services, along with their traditional role in determining what families need to do to secure and retain assistance, what services families receive, how generously these services are funded, and how heavily they are regulated. States set these child care policies in the broader context of other policies, most notably welfare and training assistance, which also have been devolved to the state level.

In designing new child care subsidy programs, both federal and state policy officials have had to act in the absence of good information about patterns of child care and subsidy use by low-income families. Although some (but not all) states are able to use administrative data to obtain basic information about the population using subsidies at a single point in time, they have been unable to extend these analyses to examine the characteristics of families or their patterns of child care use.

Of particular importance, cross-sectional data have not provided information about the dynamics of subsidy use. In the 1970s and 1980s, research on the dynamics of participation in other means-tested programs, most notably AFDC, led analysts and policy officials to a new understanding of welfare use and the characteristics of recipients. This research documented, for example, the heterogeneity of the population receiving welfare and the extent to which many recipients cycled in and out of "spells" of welfare receipt. Similar research on the dynamics of child care subsidy use is notably lacking.

In designing new child care subsidy programs, both federal and state policy officials have had to act in the absence of good information about patterns of child care and subsidy use by low-income families.

Although poorly understood, the dynamics of child care subsidy use are potentially very important for both families' economic well-being and children's developmental well-being. Given persistent low earnings, parents leaving welfare (and other low-skilled working parents) are likely to remain eligible for means-tested child care assistance for a relatively long period. At the same time, however, their participation in short-term employment preparation activities, turnover in employment, and variable earnings may make it difficult for these families to remain continuously eligible for subsidy assistance. Burdensome application and recertification processes may create additional barriers to continuous subsidy receipt. For parents, instability in subsidy receipt may mean the difference between keeping and losing a job, and, for those employed, between self-sufficiency and poverty. For children, instability in subsidy receipt may contribute to instability in care arrangements, which developmental experts identify as a risk to healthy socioemotional development. The stability or continuity of subsidy assistance thus has two-generational implications: for the employment stability and self-sufficiency of families and for the healthy development of children.

Child care and welfare policies may have a substantial influence on the dynamics of child care subsidy use. For example:

- Parents in states that impose a large copayment may have fewer incentives to retain subsidies and shorter spells of subsidy receipt than those in states with lower copayments.
- Parents and providers in states that provide low provider payments may have fewer incentives to retain subsidies and shorter spells of receipt than those in states with higher payments.
- Parents in states that prioritize assistance to TANF recipients may have less stable employment-related activities and shorter spells of subsidy receipt than those in states that allocate more of their child care subsidy dollars to employed parents.
- Parents in states that encourage use of licensed care may have more stable child care arrangements and longer spells of child care subsidy receipt than those in states that allow use of unlicensed care arrangements.
- Once they end a spell of subsidy receipt, parents in states that are not serving all income-eligible families may be less likely to return to the subsidy system than parents in states that are serving all families who apply for assistance.

Although there is reason to expect that state policies such as these may affect the continuity of child care subsidy assistance, few studies of child care policy have examined these issues. The present study seeks to advance understanding of these issues by describing and comparing the dynamics of child care subsidy use in five states with diverse policy regimes.

This Study

To better understand who is served by child care subsidy systems and what services they receive, research is needed that examines the dynamics of subsidy use across multiple state policy contexts. Such research has been limited by the lack of comparable micro-data at the state level. Child Care Policy Research Partnerships funded by the U.S. Department of Health and Human Services have helped to fill this gap by constructing comparable, analyzable data sets in several states.

The Child Care Policy Research Partnerships include state policymakers, practitioners, and researchers. These teams are charged with developing a research agenda in response to pressing policy questions in their states. Several of the partnerships have constructed linked, longitudinal data sets with administrative data from states' child care subsidy systems. These data sets create new opportunities to analyze the characteristics of children and families who use subsidies, and the dynamics of their subsidy participation. The Partnerships work together as the Child Care Policy Research Consortium.

Administrative data are collected by systems designed to determine eligibility and process payments; they are not designed with research purposes in mind.

This study made use of data sets constructed by three of the Child Care Research Partnerships. Consortium members representing Illinois, Maryland, Massachusetts, and Oregon joined together to build a collaborative, cross-state research design. Researchers in Texas, who were already engaged in similar research, agreed to join the project. Researchers from each of the states met together several times over a two-year period to develop comparable longitudinal data sets using administrative data from state child care subsidy systems. The research team included policy experts familiar with each of the five states and analysts familiar with administrative data and analytic methods. State agency partners played a critical role in helping the research partners understand data elements and policies in each state, and provided valuable feedback on the study results and interpretations.

The strength of the study is that it uses administrative data for all or a significant proportion of all children who ever used child care subsidies during a two-year period in each state. Its weakness lies in the fact that it draws on this information alone. Administrative data are collected by systems designed to determine eligibility and process payments; they are not designed with research purposes in mind. They include information about family characteristics that are relevant to eligibility determination but rarely include accurate information about other family characteristics (such as ethnicity and education), or about families' status while not receiving subsidies, that would be useful for research.

The states involved in this project varied in their administrative structures and philosophies, approaches to welfare reform, subsidy delivery systems, and local child care and labor markets. Although child care and TANF policies, administrative structures, and local procedures often are analyzed in isolation, it is often the *interaction* of state policies that shape service outcomes. The body of this report includes a description of a portion of the relevant state child care subsidy and welfare policies. Additional information about state administrative structures and policies is provided in Appendix 2 and in individual state reports. Although it was beyond the scope of this study to document and analyze all relevant policies, the summary of policies provides a crucial context for understanding the study's empirical results.

Despite these limitations, this study provides important new information about the characteristics of children and families who received subsidies, the services they received, the length of time they received services, and the stability of children's care arrangements while in the subsidy system. The report is organized in the following sections:

- Section 2 provides an overview of the research design, data, and methods;
- Section 3 summarizes relevant state child care and TANF policies;
- Section 4 reports descriptive findings about the types of families served and services provided;
- Section 5 reports descriptive findings about the dynamics of subsidy use, including the *continuity* of assistance (the length of children's continuous subsidy receipt), the *duration* of assistance (the likelihood that children returned for subsequent spells of assistance), and the *stability* of children's care arrangements while they were receiving subsidies;
- Section 6 considers the correspondence between state policies and the dynamics of subsidy participation; and
- Section 7 discusses the implications of these findings for child care policy and future research.

Additional detail on the study's data and measurement decisions is provided in Appendix 1. Additional detail on state administrative structures and child care policies is provided in Appendix 2.

SECTION 2

OVERVIEW: STUDY DESIGN, DATA, AND METHODS

Research Questions

The study team sought answers to the following questions:

- **Characteristics of Recipients and Subsidies.** What are the characteristics of families served within state child care subsidy systems and what types of services do they receive? How do these characteristics vary across the states?

- **Dynamics of Subsidy Use.** Among children receiving child care subsidies, what is the *continuity* of assistance, measured as the length of spells of continuous subsidy receipt? Does the length of subsidy spells vary across the states? Does spell length vary with family and service characteristics? What is the likely *duration* of assistance, measured as the likelihood that children returned for subsequent spells of assistance? Does the probability of reentry into the subsidy system vary across states? Among children receiving child care subsidies, how many have *stable* (or sustained) relationships with their primary provider? Does the stability of care arrangements while on subsidy vary across states?

Data

Researchers representing each of the five states obtained policy and administrative data for the state and conducted initial state-level analyses. In collaboration with the state experts, researchers at Columbia University School of Social Work then conducted cross-state comparative analyses.

State researchers collected policy data by reviewing documents and interviewing key informants in each state. Administrative data were obtained from state child care subsidy payment systems with the cooperation of the relevant state agency officials. Raw data from the states' subsidy payment files were obtained for services during 24 calendar months in each state, covering the period of July 1997 through June 1999.[1] For the five states in the study, the data include all (or a significant portion) of the child care subsidy assistance that was delivered through each state's voucher program. In Maryland and Texas, this corresponded to the universe of families assisted through the subsidy system because all assistance was provided through vouchers. In the remaining states, the data did not include the portion of the population assisted through contracted care (i.e., child care that was paid for through a direct contract with a provider). This excluded approximately 5 percent of all subsidized families in Oregon, approximately 20 percent in Illinois, and approximately 50 percent in Massachusetts.

The findings from this study can be generalized only to voucher-based subsidy assistance. In addition, data for Massachusetts were available for only part of the state, capturing an estimated 50 percent of all voucher-based child care assistance, and is weighted heavily toward TANF-related users.[2]

The administrative data for each state were cleaned and transformed to a family-level sample by randomly selecting one child from each family that received any subsidy assistance during the 24-month observation period. Results are interpreted as the experience of families served in the subsidy system, with equal representation of families regardless of the number of children who received subsidies.

The sample was further restricted by excluding cases receiving a subsidy during the first month of the observation period (i.e., the spell was left censored). This restriction excluded between 24 and 36 percent of observations in various states. State-level analysis samples ranged from 15,202 observations (person-months) in the smallest sample to 130,112 in the largest. (Information on sample sizes and on the share of cases excluded due to left censoring is provided in Appendix Table A.1.2.)

The measures presented in this report represent the experience of all families participating in the subsidy program over a two-year period regardless of the length of receipt.

Measures

Measures of child and family characteristics and service characteristics in each of the five states were constructed directly from the administrative data. The length of subsidy receipt was measured in "spells," with a spell defined as one or more consecutive months of subsidy receipt that were preceded and followed by one or more months of nonreceipt. Although an interruption of services for a longer period of time (e.g., two to three months) has been used in many analyses of welfare dynamics, the shorter period of one month was used in this study. Because monthly data corresponded to service receipt, even a one-month break indicated a break in the continuity of subsidized care. For descriptive analyses, measures of child/family and service characteristics were constructed for the first month of the first observed spell of subsidy receipt for the randomly selected child. Analyses were conducted on those spells of subsidy receipt which *started* during the observation period. All data reflected the month in which the family received services (rather than the month in which the provider was paid, if different).

Note that the measures of family, child, and service characteristics that are constructed from the two-year data will differ from measures constructed from a point in time, such as one month's caseload. For example, the proportion of children who are a certain age will differ between this study and a point-in-time study if older children have longer spells of subsidy receipt. These differences arise because families with longer spells of subsidy receipt are a larger share of those participating at a point in time. The measures presented in this report represent the experience of all families participating in the subsidy program over a two-year period regardless of the length of receipt. The characteristics of children, families and services are measured in the first month of the (first observed) spell.

Analyses

The first analyses compare the characteristics of families and children who received subsidized child care (including the age of the child, the activity status of the parent, and family income) and the services they received (including type of care, value of subsidy and size of copayment).

Three aspects of the dynamics of subsidy use were calculated and compared across the states: continuity, duration of assistance, and stability of child care arrangement.

As a measure of the likely *continuity* of subsidy assistance, analysts calculated the median length of continuous spells of subsidy receipt for the randomly selected child. Given a relatively short 24-month observation window, an unadjusted estimate of average spell length was likely to be biased by the lack of data on spells that began before the observation period (i.e., left censored) and those that were in process at the end of the period (i.e., right censored). To avoid problems of left censoring, the analysis samples were restricted to periods of subsidy receipt that began during the 24-month observation period. To correct for right censoring, analysts used the Kaplan-Meier procedure to estimate spell length. This statistical procedure estimates the conditional survival rate at each month (the proportion of cases that continue to the observed month, given that they survived to the prior month), using spells for which data are available in the observed month (correcting for right-censoring of spells that extended beyond the observation window). Analyses compared spell lengths across the states using the first observed (nonleft censored) spells for the randomly selected child.[3] From this they derived the conditional survival rate, or in other words, the conditional probability that a child receiving a subsidy in a given month received assistance in the following month.

Analysts next considered one measure of the likely *duration of assistance*. Given a short observation period, accurate estimates of children's total time in

the subsidy systems were difficult. A sense of the total duration is provided by considering whether children who exited the subsidy system returned for subsequent spell(s) of assistance. Using the first spell of new entrants during the observation period, analysts calculated the proportion of those ending a subsidy spell that returned to the subsidy system within three, six, nine and 12 months. For this analysis, the sample was restricted to spells with a sufficient number of months of data to calculate the reentry rate (e.g., to be included in the calculation of the rate of reentry within 12 months, there must be at least 12 months of data following the end of the subsidy spell).

Finally, to examine the *stability* of children's care arrangements, analysts compared the number of providers that children had during their time in the subsidy system. Because the data for this analysis included only months during which children received subsidies, it was impossible to measure the *total* length of time children spent in a single arrangement (because children may have been in the same arrangement before or after the period of subsidization). Instead, the data were used to measure the stability of providers for each child *during the entire period of subsidization*.

As a measure of the stability of arrangement within periods of subsidy receipt, analysts calculated a "primary provider ratio." The primary provider was defined as the provider with the most months of care for that child (while on subsidy). The primary provider ratio was calculated as the number of months during which the child was cared for by this provider relative to the total number of months that the child was in subsidized care during the 24-month observation period. A primary provider ratio of 1.0 is interpreted to mean that all of the months of subsidized care were spent with the primary provider. A ratio of .75 is interpreted to mean that during 75 percent of the months of subsidized care the child was with the primary provider, and so on.

SECTION 3

THE POLICY CONTEXT

State child care and TANF policies influence both the characteristics of families served in the state subsidy system and the services that families are provided. These policies may also influence the length of assistance, both directly (by restricting the period of assistance or creating barriers to continuous assistance) and indirectly (through their influence on the characteristics of the subsidized population and subsidized services). This section compares state policies for determining child care subsidy eligibility, selected TANF policies, and policies governing subsidy payments and copayments. Additional information about state child care administrative structures, financing, and regulations is provided in Appendix 2.

Income Eligibility Ceilings

States control entry to their child care subsidy programs by setting rules for the activities that parents must be engaged in to qualify for assistance, the income ceiling beyond which families will be ineligible for assistance, and the specific forms of income that will be used in this calculation. Table 1 summarizes these rules across the five states.

To compare state eligibility ceilings, the research team considered both the dollar amount of the income limit and this limit as a share of the state median income (SMI) for the same year (see Figure 1). In both dollars and as a share of SMI, the initial child care subsidy eligibility ceiling was highest in Texas (74 percent of SMI or $2,278 per month) and lowest in Maryland (36 percent of SMI or $1,518 per month). In Maryland, Massachusetts, and Texas, a higher ceiling was set for continuing services, allowing families to remain eligible for subsidies even after their incomes rose above the initial eligibility level. In some states, ceilings for continued assistance approached the median income for all families in the state (e.g., 67 percent in Massachusetts and 92 percent in Texas).

Families' eligibility for subsidy assistance is determined not only by income guidelines, but also by state policies governing income excluded from eligibility determination. All states exempted some resources (e.g., food stamps) when calculating income for the purpose of subsidy eligibility. Oregon also excluded all TANF benefits; in Texas, parents participating in the Choices employment and training program were automatically eligible. Although Illinois policy did not exclude TANF income, starting in July 1998, it did disregard the first 10 percent of a family's earned income.

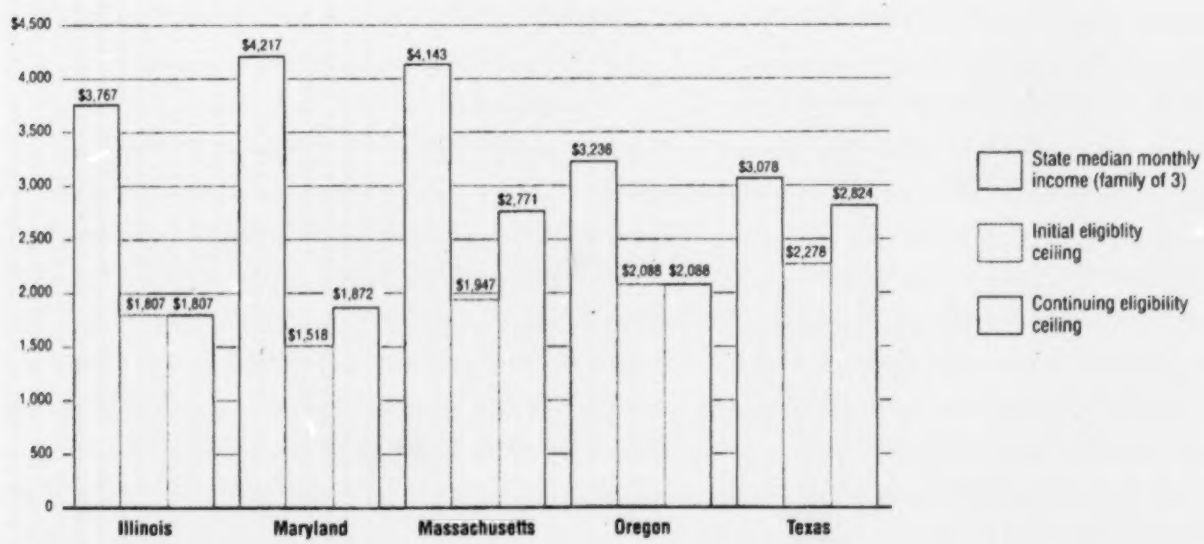
For families who secured a subsidy, the length of time they remained in the system may have been affected by the frequency with which they had to reestablish their eligibility. The schedule for eligibility redeterminations varied not only across states but also across families (within states) who qualified for different forms of assistance. A six-month recertification schedule was common, but for the majority of Oregon and Maryland families three months recertifications were the norm. Recertification varied from as frequent as every month to as seldom as 12 months (at the caseworker's discretion) for families in Maryland and in Oregon. There was little consistency across states in which families faced the most stringent recertification rules: in Maryland, TANF recipients were subject to more frequent recertification demands than non-TANF clients; in Texas, non-TANF families were required to recertify eligibility every six months, but TANF clients retained eligibility as long as they were participating in the Choices employment program.

States also varied notably in their explicit policies for rationing services. Only Illinois had made a formal commitment to serve all income-eligible families in the state who applied. Although Maryland had not made a formal commitment, in fact, all eligible families who applied for services were served. Oregon had made a commitment to serve all families in short-term employment services designed to deter

Table 1: Selected Elements of Child Care Subsidy Eligibility Rules, by State (1997 to 1999)

Eligibility Rule	Illinois	Maryland	Massachusetts	Oregon	Texas
Income eligibility ceiling per month as % of state 1998 median income (for family of three, 1998)	48% ($1,818)	36% ($1,534) at application and 44% ($1,872) for continued services	47% ($1,931) at application and 67% ($2,771) for continued services	65% ($2,088)	74% of SMI ($2,278) and 92% of SMI ($2,824) for continued services
Income exclusions for determining eligibility	Children's earned income; nonrelated adults' income; food stamp benefits; 10% of earned income (other than self-employment), 7/98	Children's earned income; nonrelated adults' income; food stamp benefits	Children's earned income; nonrelated adults' income; food stamp benefits TANF benefits	Children's earned income; nonrelated adults' income; food stamp benefits;	Food stamp benefits; TANF benefits if parent is in Choices program
Eligible activities	Employment, education, training	Employment, education, training	Employment, education, training, or receiving protective services	Employment, education, training; assessment/diversion	Employment, education, training
Frequency of recertification	6 months	Up to one year; actual period varies among local offices, average 3 months for TANF clients and 6 months for non-TANF clients	From 1 to 6 months depending on TANF and employment status	Voucher clients every 3 months; caseworkers have authority to set to between 1 and 12 months	6 months for non-TANF clients; TANF clients in Choices program remain eligible until Choices eligibility changes
Subsidy Priorities	Income eligible families, including TANF and non-TANF employed families	TANF families and income-eligible, employed families, including former TANF and non-TANF families	TANF families and employed former TANF families	Diversion from TANF, including families in assessment and in employment	Families in TANF Choices program; shifted to non-TANF employed families later in period
Service Rationing	Commitment to serve all eligible families	Waiting lists until October 1997, with no waiting lists after that date	Waiting lists for non-TANF families	Waiting lists only for participants in post-secondary education	Varied; waiting lists maintained by some local agencies during some parts of study period

Figure 1: Subsidy Eligibility Ceilings Relative to State Median Monthly Income (1998)



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welfare use or to move recipients from welfare to work. Assistance was also available for working, non-TANF families in Oregon, but this was not widely advertised. Massachusetts was committed to serving all TANF and former TANF families through TANF, transitional, and post-transitional programs. In Texas, all families participating in the TANF Choices program were guaranteed a child care subsidy. Access for working families outside the TANF system was less certain. Prior to 1998, income-eligible but non-TANF families were routinely placed on waiting lists in many (but not all) local offices in Texas. A state policy change in December 1998 loosened requirements that restricted some child care funds to Choices and transitional benefits-eligible recipients. This resulted in a temporary increase in funding for non-TANF-related care and eliminated waiting lists in those areas that had had waiting lists. After a few months, waiting lists in some areas of the state began to form again for non-TANF-related care.

TANF Policies

State rules governing child care subsidies interact with rules for the TANF program to create distinctive state policy regimes. Because families' eligibility for subsidy assistance often depends on their current or prior TANF status, for example, state rules setting TANF benefit levels and work requirements can influence the characteristics of the population receiving subsidized care. State welfare reform priorities are also influential because they set explicit and implicit priorities for populations to be served; these priorities, in turn, influence the types of families who access services. Table 2 summarizes several areas of state TANF policy that are particularly relevant for understanding child care subsidy use.

The five states varied in their welfare reform goals and in their priorities for TANF-based child care assistance. Illinois welfare reforms emphasized early employment among TANF recipients, using child care subsidies to support families who were combining work with welfare and families who were working and not receiving TANF. Maryland's welfare reforms also emphasized employment, and the state used child care subsidies to support job readiness and post-welfare employment. Massachusetts used child care subsidies primarily to help TANF families achieve and maintain employment; former TANF families in Massachusetts had priority for assistance among the income-eligible families. In Oregon, welfare reforms focused on supporting self-sufficiency outside the welfare system. Child care subsidies were used both to help move TANF recipient families into work and to divert new applicants away from welfare. In Texas, welfare reforms emphasized work attachment and up-front welfare diversion. Families enrolled in short-term Choices employment preparation programs and those leaving TANF for work were given priority for subsidy assistance.

Table 2: Selected Elements of TANF Policy, by State (1997 to 1999)

TANF Policy (1998)	Illinois	Maryland	Massachusetts	Oregon	Texas
Maximum TANF grant for a one-parent family of three	$377	$377	$579	$460	$188
Earning disregard policies for TANF eligibility	Disregard 67% for all months	Disregard 26% for all months	Disregard first $120 and 50% of remainder for all months	Disregard 50% for all months	Disregard first $120 and 33% of remainder for first 4 months; first $120 for next 8 months; first $90 after that
Maximum TANF grant for a family with adult working full time at minimum wage job	$115	Ineligible	$248	$69	Ineligible[a]
Age of youngest child that exempts parent from TANF work requirements	1 year	1 year	School-age[b]	3 months	5 years until 10/97, 4 years thereafter during study period

[a] Eligibility for continued TANF receipt in Texas depends also on the receipt of a child care subsidy. If the family does not receive a subsidy, the full amount of child care costs can be deducted from earnings and the family may remain eligible for a TANF grant. If child care is subsidized, only the family copayment is deducted from earnings, and the family would be ineligible for a TANF grant.

[b] Parents with children under school-age were exempt from work requirements, but not time limits. Also, two-year time limits began when children turned two years old.

State policies governing TANF benefit levels and work obligations were largely consistent with state welfare reform goals. In Illinois, parents were required to work or prepare for work when their youngest child reached the age of one, and moderate TANF benefits and generous earnings disregards (67 percent of all earnings for an unlimited number of months) supported families mixing welfare and work. Maryland also imposed work requirements for parents with children as young as one year. TANF benefits were moderate in this state, but earnings disregards were limited. In Oregon, work requirements were imposed as soon as the youngest child in the family reached the age of three months. Although Oregon had strong welfare deterrent policies, TANF benefits and earnings disregards for those who received welfare were relatively generous. Massachusetts provided the highest TANF benefits among the five states and generous earnings disregards. The state also exempted parents from work requirements until their children reached school age (although two-year time limits began when children reached age two). Despite the strong emphasis on employment, Texas did not impose work requirements during this period until the youngest child reached age five (lowered to age four beginning in September 1997).[4] But low TANF benefits ($188 per month for a family of three) and earnings disregards ($120 plus 33 percent of remaining income, reduced after four months) reduced the likelihood that Texas families would receive cash assistance if they were employed.

Family Copayments

State rules regarding child care copayments determine both the level of fees and the distribution of these costs across different families. The rules have the potential to influence both which families choose to use subsidies and the type of care they select. Table 3 summarizes state copayment policies across the five states.

All states in this study exempted some families from copayment, but the share of population exempted varied substantially (see Table 3). Illinois granted the fewest exemptions, requiring copayments from all families except for those in which only the child was receiving TANF. The remaining states exempted families in means-tested cash assistance programs such as TANF, Food Stamp Employment and Training (FSE&T), and Supplemental Security Income (SSI). Three states limited the exemption of TANF

Table 3: Copayment Policies, by State (1997 to 1999)

Copayment Policies	Illinois	Maryland	Massachusetts	Oregon	Texas
Copayment Rules (for families with copayment)	Adjusted for income, family size, and, from 10/97, number of children in care	Adjusted for income, family size, number of children in care and local costs	Adjusted for income and family size	Minimum of $25 and increased with family income	9% of gross income for one child and 11% for two or more children
Copayment Exemptions	child-only TANF cases	TANF and SSI recipients	TANF cases and some child-protective cases	Participants in JOBS employment programs, and unemployment insurance or food stamps recipients	TANF, SSI, Food Stamps Employment and Training, child protective services clients
Monthly copayment[a] for TANF family[b] earning $2,000 per year	$1 (7/97) $9 (10/97)	None	None	None	None
Monthly copayment for non-TANF family[b] at poverty level (income at eligibility ceiling for Head Start)	$1 (7/97) $69 (10/97)	$106 (7/97) $103 (12/97)	$78	$87	$119 (1997) $123 (1999)
Monthly copayment for non-TANF family[b] earning 1/2 SMI (state median income)	$139 (7/97) $234 (10/97) $282 (1/98) $234 (7/98)	Ineligible for subsidy	$273	$300	$164 (1997) $169 (1998) $180 (1999)

[a] The highest rate if copayments vary throughout the state: 7/98 in Illinois; 7/97 in Maryland; 7/98 in Oregon; 7/97 in Texas.

[b] Based on family of three: parent plus two- and four-year-old child

recipients from copayments to recipients involved in work or work-preparation activities.

State copayment formulas varied in terms of overall amount and the marginal increase for families at various income levels.[5] To compare the size of the copayment across states, analysts calculated the copayment for a prototypical family with varying TANF and employment income in each state as of 1998: a single parent with two children (ages two and four) at various income levels. A family receiving TANF and earning $2,000 per year was exempt from copayments in all states except Illinois, where it had a $9 monthly copayment. For a non-TANF family who had income at the federal poverty line, copayments ranged from a low of $44 per month in Maryland to a high of about $120 in Texas. A non-TANF family with monthly earnings at one-half of the state median income was ineligible for assistance in Maryland, and it had substantial copayments in the other states ($169 per month in Texas, $273 per month in Massachusetts, $282 in Illinois, and $300 in Oregon).

To examine how the level of copayments changes as income increases, Figure 2 compares simulated copayments across the income distribution in four of the five states.[6] This exercise demonstrates cross-state variation in how steeply, and at what points, copayments increased with income. In Texas, where copayments were calculated as a constant percentage of family income, copayments rose proportionately with income. In the remaining states, copayments rose slowly for the lowest income families and much more steeply after family incomes reached about $1,300 per month. The increase in copayments was particularly sharp for families in Oregon after this point and also notably steep in Massachusetts. This produced substantial variation in copayments for higher-income families. For example, for families with monthly incomes of $1,500, copayments ranged from a low of $121 in Massachusetts and $165 in Texas to a high of $230 in Oregon.

Payments to Providers

State policies regarding provider payment are important in their own right because they set the ceiling on the value of assistance that families can receive. Payment rates may also be important for understanding who is served in subsidy systems and for how long because this value creates incentives and disincentives for providers and parents to participate. Table 4 summarizes information on state polices for payments to providers.

Figure 2: Copayment Rules Relative to Monthly Family Income (three-person family with one adult and two children)

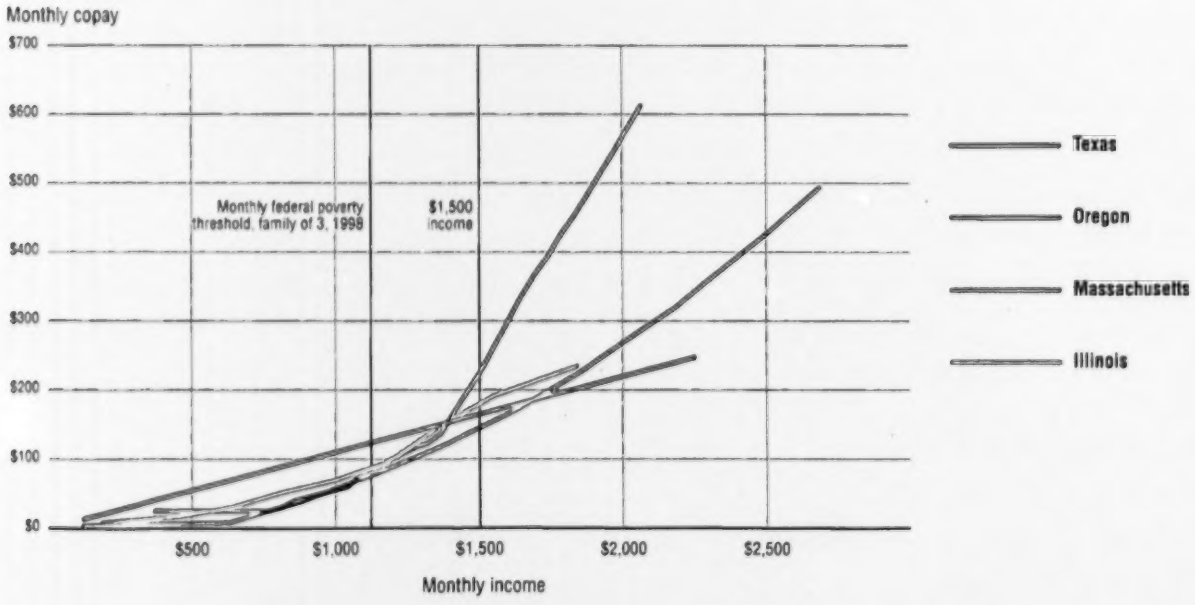


Table 4: Provider Payment Rates, by State (1997 to 1999)

	Illinois	Maryland	Massachusetts	Oregon	Texas
Payment Rates for a Four-Year-Old Child in Full Time Care					
Maximum rate for center care	$374 (7/97) $515 (1/99)	$369 (7/97) $565 (12/97)	$628 (10/96)	$350 (7/97) $372 (7/98)	$431
75th percentile of market rate for center care	$607 (1998)	$597 (1999)	$910 (1999-2000)	$465 (1998)	$396
Maximum as % of 75th percentile of center market rate[a]	62% (7/97) 85% (1/99)	62% (7/97) 95% (12/97)	70%	75% (7/97) 80% (7/98)	109%
Estimated portion of market that the center payment rate purchased	Less than 25% (7/97) Between 25% and 50% (1/99)	Between 25% and 50% (7/97) Between 50% and 75% (12/97)	Less than 25%	Between 25% and 50%	Missing
Maximum rate for family child care	$288 (7/97) $433 (1/99)	$349 (7/97) $539 (12/97)	$441[b] (10/96)	$320 (7/97) $340 (7/98)	$362
75th percentile of market rate for family child care	$639 (1998)	$565 (1999)	$867 (1999-2000)	$440 (1998)	$476
Maximum as % of 75th percentile of family child care market rate[a]	45% (7/97) 68% (1/99)	62% (7/97) 96% (12/97)	51%	73% (7/97) 77% (7/98)	76%
Estimated portion of market that the family child care payment rate purchased	Less than 25% Between 25% and 50% (1/99)	Between 25% and 50% (7/97) Between 50% and 75% (12/97)	Less than 25%	Less than 25%	Missing
Maximum rate for in-home care	$195 (7/97) $200 (1/99)	$211 (7/97) $236 (12/97)	$325	$320 (7/97) $340 (6/98)	$340
Maximum rate for relative care	$200 (7/97) $200 (1/99)	$211 (7/97) $236 (12/97)	$325	$320 (7/97) $340 (7/98)	$340
Payment Rate Comparisons					
Rate for in-home care as % of rate for family child care	68% (7/97) 46% (1/99)	60% (7/97) 44% (12/97)	74%	100%	94%
Rate for relative care as % of rate for family child care	68% (7/97) 46% (1/99)	60% (7/97) 44% (12/97)	74%	100%	94%
Rate for family child care as % of rate for center care	77% (7/97) 84% (1/99)	95% (7/97) 95% (12/97)	70%	92% (7/97) 92% (7/98)	84%
Are providers allowed to collect additional charges from parents?	Yes	Yes	No	Yes	No

[a] If market rates vary throughout the state, market rate in most expensive region; based on 1998 market rate survey in Illinois; 1999 market rate survey in Maryland; 1999-2000 market rate survey in Massachusetts; 1999 market rate survey in Oregon; 1996-97 and 1998-99 market rate surveys in Texas.

[b] This is the maximum rate for an independent family child care provider. Those in family child care systems received additional benefits.

Because child care costs vary across states, state payment rates are best understood relative to the prevailing cost of care in the state. In an effort to assure that subsidy clients would have access to a large segment of the child care market, Congress encouraged states to reimburse families for care up to the 75th percentile of the prevailing cost (market rate) of care, considering the type of care and the age of the child. Nevertheless, states are free to set their own payment rates and to consider or ignore the market rate in setting these rates. In this sample of five states, only Maryland had an explicit policy of setting rates at the 75th percentile of market rates for all care types (beginning in 1997). As of 1996, Massachusetts set rates at the 55th percentile of 1994 market rates for all care types. In Illinois, Oregon, and Texas, rates were not consistently tied to a single percentage of market rates.

Payment and market rates varied by type of care, age of child, and by region within each of the states. To provide comparable units for comparison, Table 4 reports the maximum payment rates relative to market rates for alternative forms of full-time care for a four-year-old child (in a one-parent family, with a two-year-old sibling in subsidized care).[7] Variation

is notable on several dimensions. Payment rates for center care were lowest relative to prevailing market rates in Illinois and Oregon (see Figure 3). Only Texas set a maximum payment rate that exceeded the 75th percentile for this form of care. Payment rates for family child care were generally lower than rates for center care, and lower relative to market rates in four of the five states (see Figure 4). The maximum for a family child care provider relative to market rates was lowest in Massachusetts (51 percent of the 75th percentile of the market rate) and only somewhat higher in Illinois, Texas, and Oregon (68 to 77 percent of the 75th percentile of market rate).

The differential between payment rates for market-based care (in centers and family child care) and informal care (relatives and in-home providers) was particularly sharp in Illinois, Maryland, and Massachusetts (see Figure 5).[8] In these states, rates for license-exempt providers were between 46 and 74 percent of those for regulated family child care providers. This differential was much smaller in Oregon and Texas, where rates for informal providers were similar to those set for family child care.

In addition to setting payment rates, state policymakers determine who will pay the differential between providers' usual rates and the maximum payment rate. A provider who has a usual rate above the maximum payment cannot charge the parent for this differential in Texas and Massachusetts. In these states, it is the provider who absorbs the difference. In Illinois, Maryland, and Oregon, there is no prohibition against charging parents for the difference between usual costs and payment rates. To the extent that providers can and do recoup these costs from parents, it is families who absorb the difference when the maximum payment falls short of the provider charge.

Summary: Characterizing State Policy Regimes

State choices about TANF and child care policies resulted in distinctive policy approaches or regimes in the five states.

Illinois was the only state of the five to formally extend a subsidy guarantee to all families who met income and other eligibility guidelines. Relatively high TANF benefits and earnings disregards supported employment and the mixing of welfare with work. Although the state had adopted a broad child care entitlement and supported parental employment, the income ceiling for initial and continued subsidy eligibility (as a share of the state median income) was among the lowest of the five states. Maximum allowable payments to providers (as a share of the prevailing market rate)

Figure 3: Maximum Payment Rate Relative to 75th Percentile of Market Rate, Full-Time Center Care for a Four-Year-Old Child

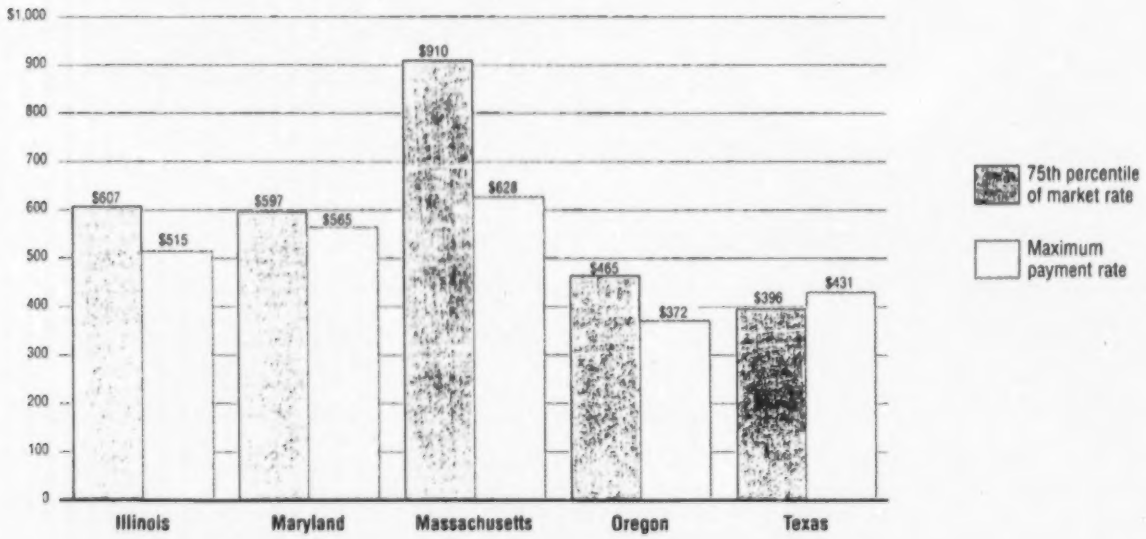


Figure 4: Maximum Payment Rate Relative to 75th Percentile of Market Rate, Full-Time Family Child Care for a Four-Year-Old Child

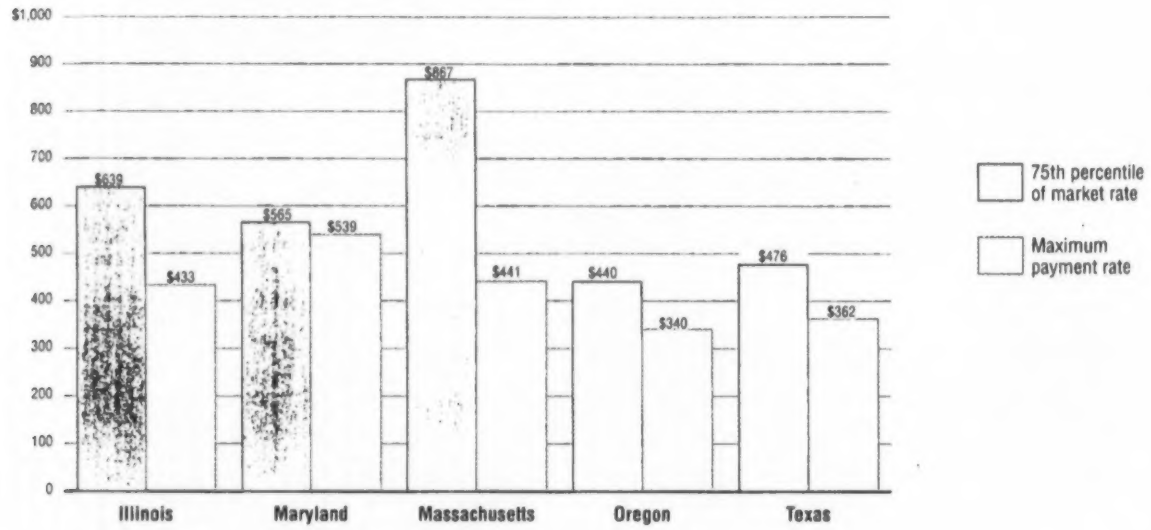
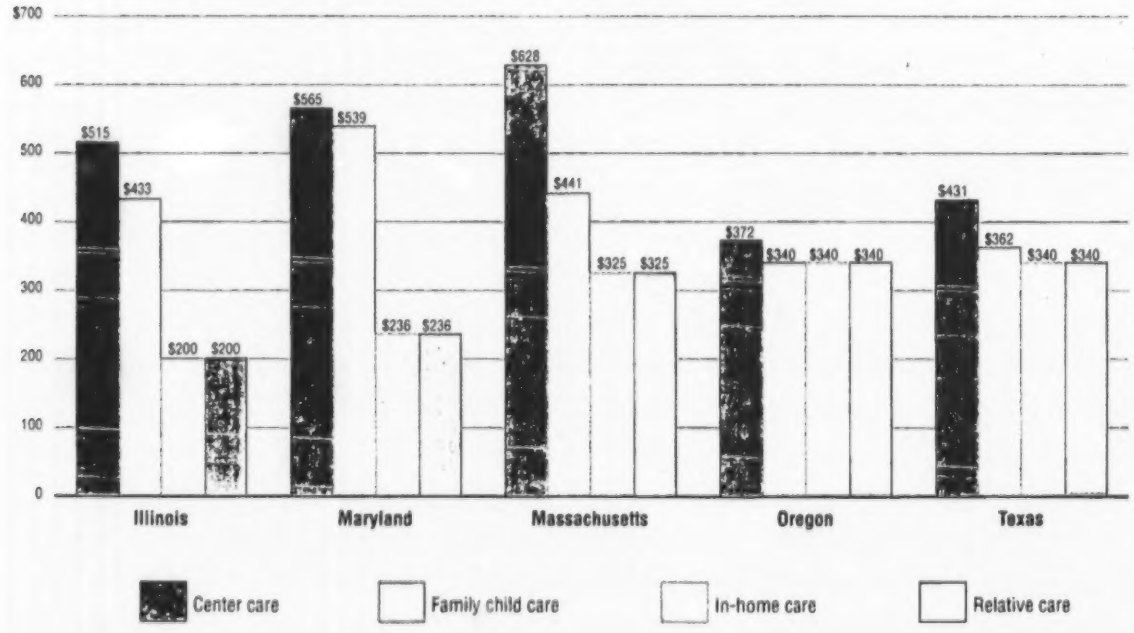


Figure 5: Maximum Payment Rate for Various Types of Care, Full-Time Care for a Four-Year-Old Child



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were also low relative to those of other states. Few families were exempted from copayments, but copayment levels were generally lower than copayments among the other four states. Retaining eligibility was relatively less burdensome for Illinois families than it was for those in the other states; families were required to recertify their eligibility every six months.

Maryland's welfare reforms also emphasized employment and gave priority for subsidies to parents in job preparation activities or post-welfare employment. Although non-TANF, working families were eligible for subsidy assistance, the income ceilings for initial and continuing eligibility (as a share of the state median income) were low in comparison to those of other states. The state exempted TANF and SSI recipient families from copayments but imposed relatively high copayments on other families. Provider payments were low, relative to prevailing market rates, at the beginning of the study period. By the end of the 24-month period, however, the state had raised payment rates for market care to about the 75th percentile of market rates. Although families could be certified for subsidy eligibility for up to one year, the actual period of eligibility averaged three months for TANF clients and six months for non-TANF clients.

Massachusetts provided the highest TANF benefits among the five states, along with generous earnings disregards. The state exempted parents from work requirements until their children reached school age (although two-year time limits began when children reached age two). The state used child care subsidies primarily to help TANF families achieve and maintain employment; former TANF families in Massachusetts had priority for assistance among the income-eligible families. Families who were receiving and exiting welfare were served primarily through the voucher system; working, non-TANF families were more likely to receive assistance from a provider who contracted directly with the state. The state exempted TANF-recipient families from copayments, but imposed relatively high copayments on higher-income families. The state had the highest rate of payment among the five states for center based care; payments for family child care, relative, and in-home care were all substantially lower. Families were required to redetermine their eligibility for assistance every one to six months depending on their TANF and employment status.

Oregon's welfare reform policies emphasized both initial deterrence from welfare and rapid employment among TANF recipients, who were required to participate in work activities as soon as their youngest child reached the age of three months. Child care subsidies were also available to working, non-TANF families, but these were not widely advertised. In comparison to the other states in the study, Oregon set an eligibility ceiling that was reasonably high (as a share of the state median income). On the other hand, provider payments were below the 75th percentile of market rates for market-based care. Oregon was also distinguished by unusually high parental copayments for higher income families, although all families receiving TANF were exempted from copayments. Among those who were not exempt, however, the minimum copayment was $25 per month and rose very steeply with family income above the poverty line. Maintaining subsidy eligibility was relatively burdensome for Oregon families. Although caseworkers had the option of scheduling redeterminations as infrequently as once per year, most subsidy recipients were required to recertify their eligibility every three months.

Texas subsidy policies were characterized by a combination of high provider payments, family copayments that were low (relative to other states) and increased at a constant rate with income, and the highest income eligibility ceiling (relative to state median income) among the five states. In contrast, TANF benefits and income disregards were the lowest across the five states. The state's welfare reform goals emphasized rapid employment and welfare deterrence and strongly discouraged mixing welfare and work. TANF families preparing for employment through the Choices program were given priority for subsidy assistance, although benefits were extended to more working, non-TANF families later in the study period. Although rapid transitions from welfare to work were a top priority for welfare reform, parents were exempted from work requirements until their youngest child reached the age of five (or four after September 1997) due to legislative concerns about child care subsidy costs. The redetermination burden was relatively low for most families. Non-TANF, working families were required to recertify their subsidy eligibility every six months; TANF families remained eligible as long they were actively engaged in the Choices program.

SECTION 4

POPULATIONS SERVED AND SERVICES RECEIVED

State policies establish the boundaries for the subsidy population and service package, but the populations actually served and the services actually provided also depend on the implementation of formal policies and on a variety of state characteristics (e.g., demographic and economic characteristics). These mitigating factors mean that the actual recipients and services may vary from what stated policy might otherwise suggest. This section compares characteristics of the populations served and the services that each of the five states provided, using measures constructed from the states' administrative data sets.

Characteristics of Populations Served

Incomes of Subsidy Recipients

The measure of family income includes earnings and transfer payments (exclusive of food stamps) as reported in the child care subsidy data.[9] Although all states served families with low initial incomes, the median monthly incomes of subsidized families at the start of the child's subsidy spell varied from $363 in Texas to $920 in Illinois (see Table 5 and Figure 6). Illinois also served families at the highest income relative to all families in the state; families at the middle of the distribution of incomes in the subsidy population had incomes at 24 percent of the state median. Subsidized families in Massachusetts and Texas were the poorest, relative to other families in their states, with median incomes of only 11 to 12 percent of state median income.[10]

To examine how actual family incomes corresponded to the states' eligibility ceilings, Table 5 and Figure 7 compare the median incomes among subsidy recipients (at the start of the spell) to the relevant state ceilings for initial and continuing eligibility. Median incomes among subsidized families in Illinois and Maryland were close to half of the initial ceiling; in Maryland, which set a higher ceiling for continuing eligibility, median incomes of recipients were about 40 percent of the higher ceiling. Different results are observed in Oregon and Texas, where the incomes of families in the subsidy system appeared to be substantially lower than state eligibility ceilings. In Oregon, the median income of recipients corresponded to 27 percent of the eligibility ceiling. In Texas, which had the highest eligibility ceilings among the five states, the median family income of recipients was only 16 percent of the initial, and 13 percent of the more generous continuing ceilings. This suggests that in Texas and Oregon, the population of families served was substantially more disadvantaged than the potentially eligible population. It is difficult to interpret income information for the fifth state, Massachusetts, because the sample excluded families who were using contracted care, and these families were more likely to be higher-income, working families.

In four of the five states, most families receiving means-tested cash assistance (e.g., through TANF and SSI) were exempt from copayments for their child care. In these states, the median incomes of families with and without copayments (corresponding roughly to those who were and were not TANF-reliant) varied dramatically. In Oregon, the median income of families who had a copayment was roughly twice that of families with no copayment; in Maryland and Texas, it was about three times as great. Illinois was the only state to impose copayments on nearly all families; not surprisingly, the median incomes of families with and without copayments were very similar.

Activity Status of Subsidy Recipients

The activity status of the subsidized child's parent was measured using indicators of earnings and/or employment and TANF receipt during the first month of the subsidy spell. Cross-state variation in parents' initial activity status was substantial and largely consistent with states' welfare rules and reform goals (see Table 5 and Figure 8). In Oregon and Texas, states that strongly discouraged TANF receipt

Table 5: Characteristics of Families Receiving Subsidies (First Month of First Observed Spells Starting During Observation Period), by State

	Illinois	Maryland	Massachusetts	Oregon	Texas
Age of Child in Subsidy (randomly selected child)					
Infants 0 to 23 months	30%	30%	31%	36%	40%
Preschool 24 to 47 months	24%	27%	27%	22%	25%
School Transition 48 to 71 months	19%	18%	18%	17%	17%
School-Age 72 months and older	27%	25%	24%	25%	18%
Activity Status of Parent with Child in Subsidy					
Working	85%	66%	36%	50%	72%
Not Receiving TANF	15%	32%	10%	45%	55%
Receiving TANF	71%	34%	26%	5%	16%
Not Working	15%	34%	64%	50%	28%
Receiving TANF	14%	30%	48%	33%	14%
Not Receiving TANF	1%	4%	15%	17%	14%
Family Income					
Recipients' Median Family Income	$920	$732	$468	$573	$363
75th Percentile of Recipients' Family Income	$1,227	$1,130	$668	$1,016	$876
1998 State Median Income (family of 3)	$3,767	$4,217	$4,143	$3,236	$3,078
Recipients' Median Income as Share of State Median Income	24.4%	17.4%	11.3%	17.7%	11.8%
Initial Subsidy Ceiling, 1998	$1,807	$1,518	$1,947	$2,088	$2,278
Recipients' Median Income as Share of Initial Ceiling	51%	48%	24%	27%	16%
Continuing Eligibility Ceiling, 1998	$1,807	$1,872	$2,771	$2,088	$2,824
Recipients' Median Income as Share of Continuing Ceiling	51%	39%	17%	27%	13%

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1996 through September 1998.

Income in Illinois and Maryland is measured as household earnings and income as well as public assistance payments. Income in Massachusetts is measured as the sum of individual earnings and an imputed public assistance payment. Income in Oregon is measured as the sum of household earnings and income and an imputed public assistance payment. Income in Texas is the sum of individual earnings and actual public assistance payment.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

Due to left-censoring and exclusion of very long subsidy spells, the analysis sample may be biased toward families with younger children. Since the large majority of all spells are short, this bias is expected to be minimal.

Figure 6: Family Income of Subsidy Recipients Relative to State Median Income (1998)

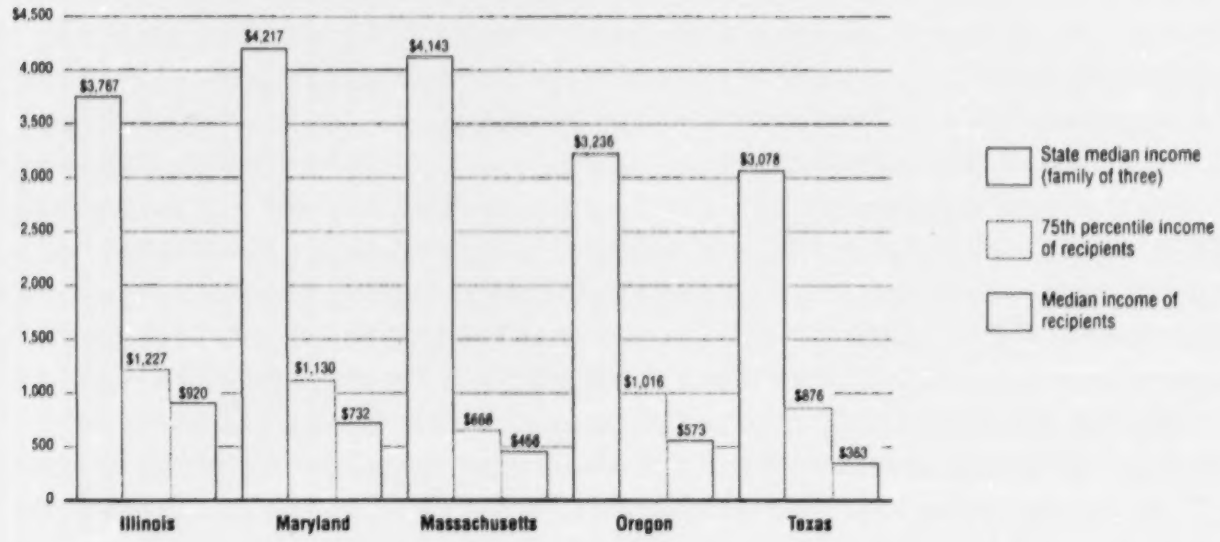


Figure 7: Median Family Income of Subsidy Recipients Relative to Initial and Continuing Eligibility Ceilings (1998)

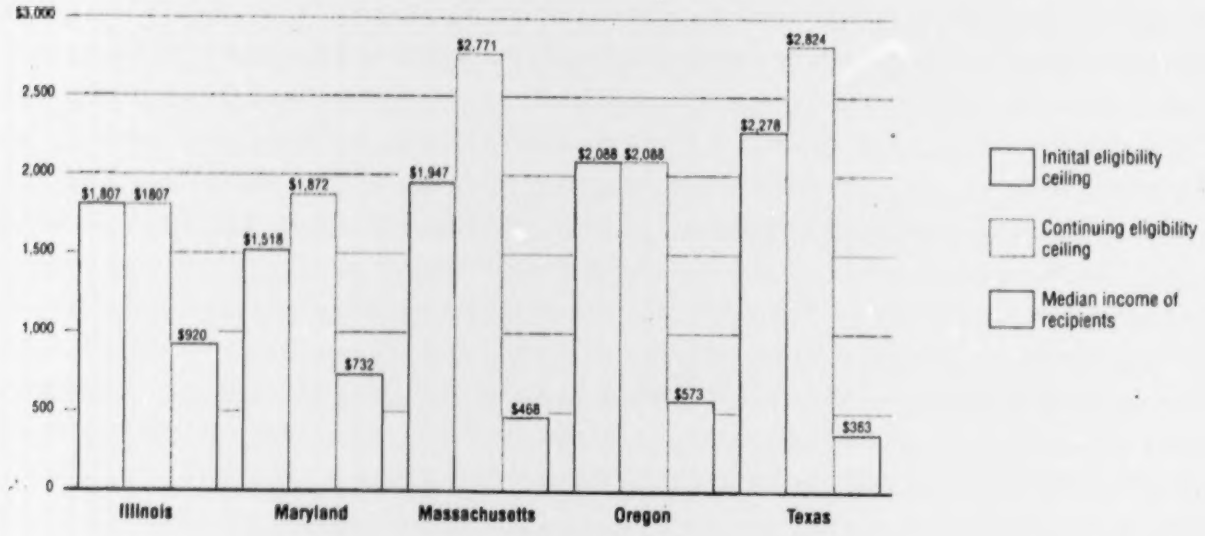
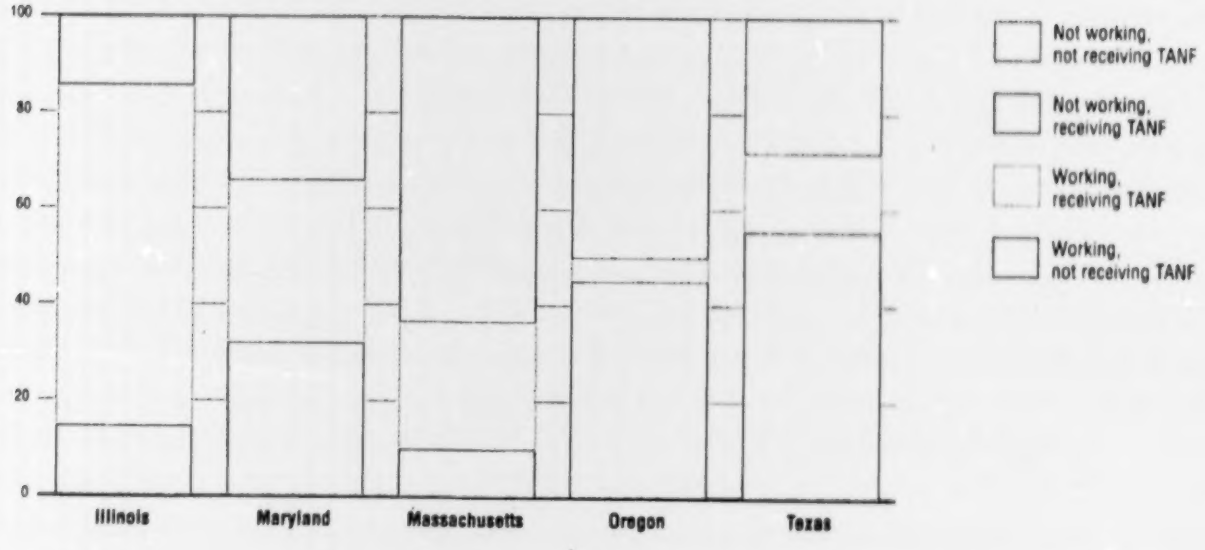


Figure 8: Activity Status, Mothers of Subsidized Children



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through initial diversion and/or low benefits, about one-half of subsidy recipient families were employed families not receiving TANF. In contrast, only 15 percent of families in Illinois were working, non-TANF families, and 71 percent were mixing welfare with work. In Maryland, about two-thirds of families were working, equally divided between those who were and were not receiving TANF.

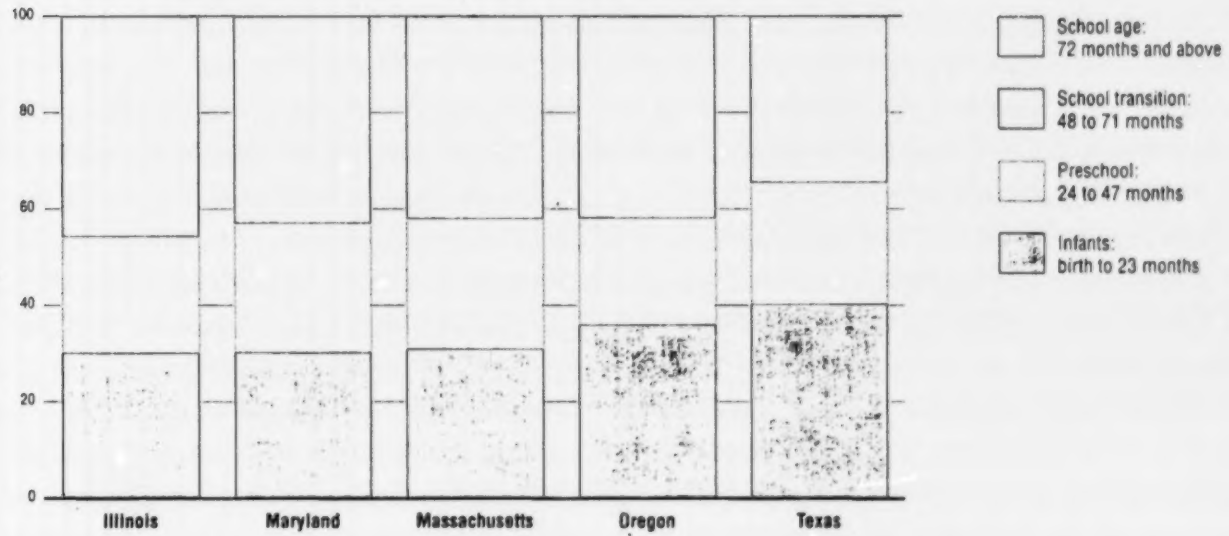
In Massachusetts, the largest single group of subsidized families was TANF recipients who were not employed. This is explained, in large part, by the exclusion of the large system of contracted care from the sample, which served primarily working, non-TANF families. In other states, the share of families who received TANF and did not work ranged from 14 to 33 percent. These families were likely to be using subsidies during short-term employment-preparation activities designed to move them from welfare to work.

A sizeable share of families in both Oregon and Texas (17 and 14 percent, respectively) were neither receiving TANF nor working. In Oregon, these families included those who were in short-term job preparation as part of the assessment services designed to divert new applicants from welfare to work. In Texas, 73 percent of the families in this group were either Food Stamp Employment and Training participants, teen parents, or displaced workers enrolled in education and training programs. Most of the others represent some type of measurement error produced when linking across administrative data systems.[10]

Age of Children Receiving Subsidies

The age of the randomly selected child from each family was measured in the first month of the spell of subsidy receipt. Despite large differences in state policies regarding work exemptions relating to children's ages, the five states were similar in the initial ages of children served by the subsidy system (see Table 5 and Figure 9). Between one-third and one-half of children were under age three, with the highest proportion of very young children (under age one) in the subsidy systems of Oregon and Texas. Between one-fifth and one-sixth of children in the subsidy system of all states were school-aged (ages six to 13).[12]

Figure 9: Age of Child in Subsidized Care (One randomly Selected Child Per Family)



Characteristics of Services Provided

Type of Care Used by Children Receiving Subsidies

To compare the type of care used by families, analysts identified the care arrangement of the randomly selected child during the first month of subsidy receipt during the observation period (see Table 6 and Figure 10). In both Massachusetts and Texas, most subsidized care was provided in regulated settings (90 and 86 percent, respectively) and most was center-based (53 and 79 percent). At the opposite extreme, families in Oregon were more likely than not to be in unregulated care (62 percent) and in a family child care setting (58 percent).[13] Care arrangements in Illinois and Maryland were distributed more evenly across care types with about one-third each in relative, nonrelative, and center care.

Family Copayments

To compare copayments at the family level, analysts calculated the average total monthly copayment for the family during the first month of subsidy receipt, considering all children in subsidized care (see Table 7). The share of families making any copayment varied markedly. Consistent with state policies that exempted few Illinois families from copayment,

Table 6: Characteristics of Services Received by Families (First Month of First Observed Spells Starting During Observation Period), by State

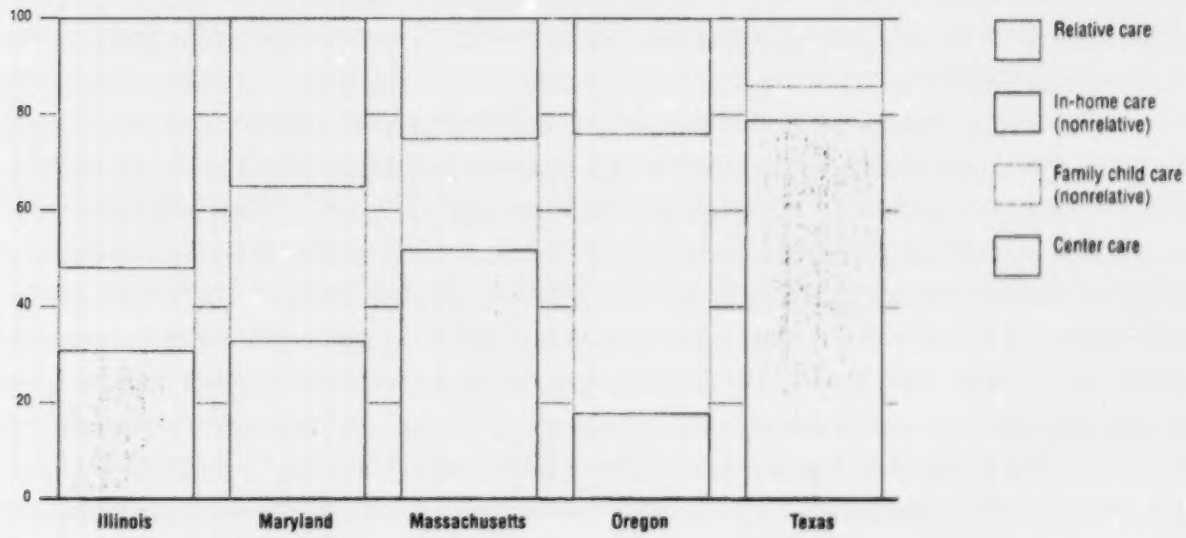
	Illinois	Maryland	Massachusetts	Oregon	Texas
Care Arrangement (randomly selected child)					
Center Care	31%	33%	53%	18%	79%
Family Child Care (nonrelative)	17%	32%	23%	58%	7%
In-home Care (nonrelative)	20%	7%	15%	4%	0%
Relative Care	32%	27%	10%	19%	14%
Regulation Status of Care Arrangement					
Regulated	42%	65%	90%	38%	86%
Unregulated	58%	35%	10%	62%	14%

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1995 through September 1998.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

Figure 10: Primary Care Arrangement for Child in Subsidized Care (One Randomly Selected Child per Family)



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about 90 percent of families in that state made a copayment. At the opposite extreme, in Massachusetts, where voucher recipients were primarily TANF recipients, 85 percent of families had no copayment. In the remaining states, between 48 and 59 percent of families did not have a copayment.

For families who incurred a copayment, median copayments ranged from $29 in Maryland to $67 in Oregon. When exemptions and average payments are considered jointly (i.e., the average copayment across all families), only Illinois, which excluded few families from copayments, had a relatively high ($35) median copayment. In three of the states, median copayments were zero because more than half of families were exempt from any copayment.

Provider Payments

The value of subsidies at the family level was measured as the total of monthly payments to all providers for all children in the family receiving subsidies during the first observed month of subsidy receipt (see Table 7). The median value of monthly subsidy payments varied by more than $150 per month across the states. Despite the heavy reliance on center-based and regulated care in Texas, and relatively high payments in comparison to market rates, the median payments to providers in Texas were the lowest among the five states ($190); monthly payments were about the same ($195) in Oregon. At the high end, the median monthly payment in Massachusetts was $363.

Table 7: Characteristics of Services Received by Families (First Month of First Observed Spells Starting During Observation Period), by State

	Illinois	Maryland	Massachusetts	Oregon	Texas
Provider Payments					
Monthly payment to provider, family level					
Mean value ($)	$311	$366	$452	$263	$254
Median value ($)	$248	$297	$363	$195	$190
Family Copayments					
Share of families with no copayment (%)	10%	48%	85%	59%	55%
Monthly copayment, family level					
Among all families					
Mean copayment ($)	$51	$34	$12	$42	$30
Median copayment ($)	$35	$2	$0	$0	$0
Among families with copayment only					
Mean copayment ($)	$56	$64	$82	$102	$44
Median copayment ($)	$43	$29	$62	$67	$35
Net Subsidy Value (Provider Payment – Copayment)					
Among all families					
Mean net value ($)	$262	$336	$446	$220	$224
Median net value ($)	$196	$266	$358	$160	$160
Among families with copayment					
Mean net value ($)	$253	$298	$517	$196	$154
Median net value ($)	$189	$234	$460	$143	$108
Median Family Income, Subsidy Recipients					
All families	$920	$732	$468	$573	$363
Families without copayment	$942	$390	$200	$460	$188
Families with copayment	$917	$1,013	$579	$965	$655
Median Copayment as Share of Recipients' Median Income					
Among all families	3.8%	0.3%	0.0%	0.0%	0.0%
Among families with copayment	4.7%	2.9%	10.7%	6.9%	5.3%
Median Net Subsidy Value as Share of Recipients' Median Income					
Among all families	21.3%	36.4%	76.5%	27.9%	44.0%
Among families with copayment	20.6%	23.1%	79.4%	14.8%	16.5%

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1996 through September 1998.

Income in Illinois and Maryland is measured as household earnings and income as well as public assistance payments. Income in Massachusetts is measured as the sum of individual earnings and an imputed public assistance payment. Income in Oregon is measured as the sum of household earnings and income and an imputed public assistance payment. Income in Texas is the sum of individual earnings and actual public assistance payment.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

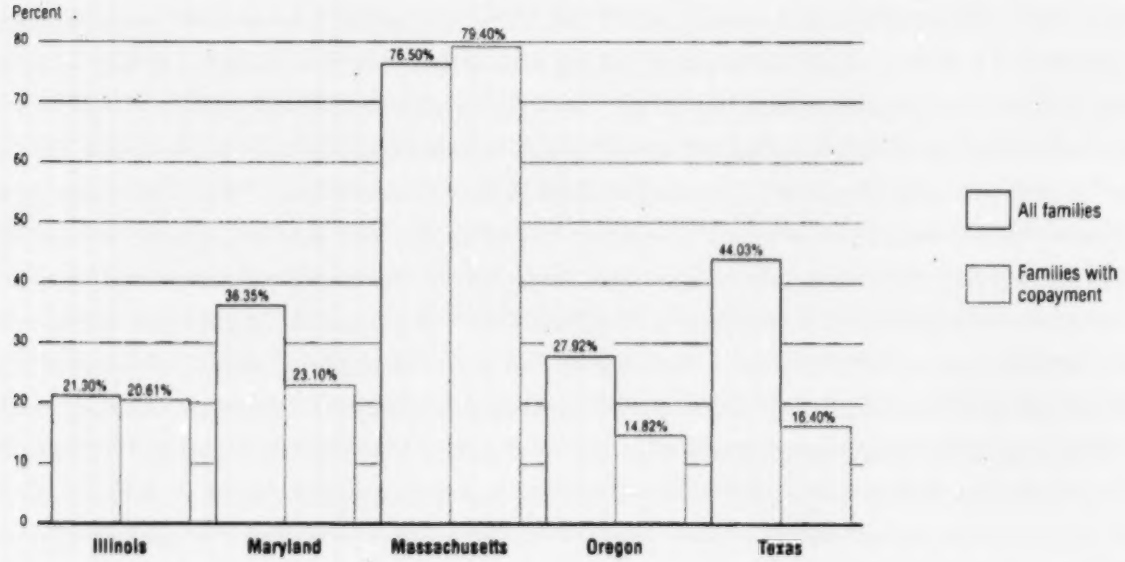
Net Value of the Subsidy to the Family

For a family receiving a subsidy, the actual value of that assistance depends on both the size of the payment to the provider and the size of the family's copayment. To compare the value of subsidies received by families, analysts calculated the *net value* of the subsidy assistance during the first month of subsidy receipt by subtracting the family copayment from the family level payment to the provider (see Table 7). To adjust for cross-state differences in the incomes of subsidy recipients, the median net value of assistance in the state is reported as a percentage of the median income of subsidy recipients. Because incomes differed systematically between families with and without a copayment in those states that exempted most welfare recipients from copayments, this percentage is calculated first for all families and then separately for families with and without a copayment.[14]

Before adjusting for family incomes, the median net value of assistance was lowest in Oregon ($160) and Texas ($160), where relatively low provider payments were combined with relatively high copayments. Net subsidy value was highest in Massachusetts ($446), where average provider payments were high and many families were exempt from copayments.[15]

Figure 11 displays the median net value of assistance as a percentage of the median income of families receiving subsidies in each state. Comparisons are calculated for all families and for those who had a copayment. These comparisons suggest how state copayment and provider payment policies interacted to produce substantial variation across states and, within states, across different groups of families. In Illinois, where nearly all families had copayments, the median net value of assistance was only 21 percent of the median income of all families in the subsidy system, and the difference in net value for those with a copayment was modest. In Maryland and Oregon, the median net value for the whole population of subsidized families corresponded to 36 and 28 percent of the median income of the subsidy populations respectively, but differences between families with and without copayments were substantial. In Maryland, the net value of assistance for families with a copayment was only 23 percent of the median income of those families, and in Oregon, it was only 15 percent. In Massachusetts, where the value of assistance was high and the incomes of the mostly TANF recipient population were low, the median net value of subsidy assistance for all families was very high: 76 percent of the median income of the population of subsidized families. Although the median level of net assistance was low for Texas

Figure 11: Median Net Value of Subsidies (Family Level) Relative to Median Income of Subsidy Recipients (1998)



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families, it corresponded to a relatively high 44 percent of the median income of the very disadvantaged population served in that state. For families with a copayment, however, the median net value was only 16 percent of the group's median income.

Summary: Characterizing State Subsidy Populations and Services

The population of families served by the subsidy systems of the five states varied. This variation may have reflected differences in the demographic and economic characteristics of the states, and may also have reflected state subsidy and TANF policies that created different incentives and barriers to subsidy participation in each state. The services provided to subsidized families also varied, and this variation corresponded even more closely to state policies.

In Illinois, state welfare policies encouraged mixing welfare and work through relatively high TANF benefits and income disregards. The majority of Illinois families were in fact combining work and welfare when they began their first observed spell of subsidy receipt. Despite high levels of employment, families in the Illinois subsidy system were very disadvantaged; the median income of subsidized families corresponded to only 24 percent of the median income of families in the state. Illinois was also the only state in the study to make a formal and explicit commitment to serve all families who met eligibility guidelines for subsidies. In combination with the high proportion of families employed at the beginning of their spells, this finding helps explain why the median income of subsidized families was highest in Illinois both in actual dollars and as a share of the SMI. In comparison to other states, Illinois used a relatively low income ceiling to determine eligibility for subsidy assistance. The median income of the families in the system corresponded to about one-half of this ceiling, suggesting that the state served a population that corresponded closely to their formal eligibility policies. Provider payments were low in comparison to market rates and were particularly low for care provided in-home or by relatives. This, combined with moderately high copayments levied on nearly all families, resulted in a median net subsidy value that was only 21 percent of the median income of all subsidy recipients. Because most families had a copayment, the median net value did not differ greatly between families with and without a copayment.

In Maryland, the initial eligibility ceiling was the lowest among the five states. Like Illinois, however, Maryland appeared to serve a population whose incomes corresponded closely to this ceiling: the median income of the subsidized population was about one-half of the guidelines for initial eligibility (although less than 40 percent of the ceiling for continuing eligibility). The population of families served was about equally divided among those on TANF, those mixing welfare and work, and those working without TANF assistance. Although a large share of subsidy recipients in the state had earnings, the median monthly income of subsidy recipients was only $732, or just over 17 percent of the median monthly income in the state. As explicit state policy, Maryland's provider payment rates were raised by 1997 to approximately the 75th percentile of market rates for center and family child care. Payment rates for relative caregivers, however, were less than half of the rate for market forms of care. This may help explain why nearly two-thirds of children were in market forms of care (either center or family child care). Although Maryland exempted about one-half of subsidy recipients from copayments, relatively high copayments (for those who paid) and low payment rates (for some providers) resulted in a median net subsidy value that was about one-third of the median incomes of all subsidy recipients and less than one-quarter of the median incomes of those *with* a copayment.

Data for Massachusetts must be interpreted cautiously in that they capture the experience of less than one-half of all subsidy recipients in the state. In particular, families who used contracted care are not included in the sample, and non-TANF, employed families were more heavily represented in this excluded population. In the sample used for this study (about one-half of the families in state who received vouchers), nearly three-quarters were TANF recipients and most were not employed in the first month of their subsidy spell. In part, this reflected Massachusetts' use of child care subsidies to help TANF families transition to employment; during their early months of assistance, voucher recipients were likely to be engaged in job search or job preparation activities. Given the heavy concentration of TANF families in this population, it is not surprising that the

median incomes of subsidy recipients were low relative both to the incomes of all families in the state and to the maximum income eligibility ceilings for subsidy assistance. Massachusetts reimbursed center care at the highest rate among the five states. Despite this, the Massachusetts payment rate for center care was low in relation to the state's market rates and payments were much lower for other forms of care. This may have created incentives for parents to select center care, which was used by over half of children in the sample of voucher recipients used in this study. Because Massachusetts served a very low-income population through the voucher program and exempted most clients from copayments, the median of the net value of subsidy assistance for all families observed in this state approached the median income of all subsidy recipients.

Oregon welfare policy strongly emphasized welfare deterrence, and this policy was reflected in the population served in the subsidy system. About one-half of Oregon's subsidized families were working, and very few of these families mixed welfare with work. Another third were TANF recipients, most likely involved in short-term employment preparation activities. A relatively large share of families were neither working nor receiving TANF; these families included those who were provided child care assistance as part of a short-term, welfare deterrence service strategy. Although many subsidy recipient families worked, the incomes of families in the subsidy system were low relative to the state median income and well below the eligibility ceiling for subsidy assistance. It is possible that higher-income families were not represented in the subsidized population because they were deterred by high copayment rates. More than half of subsidized families in Oregon had no copayment, but, among those who did, monthly copayments were the highest observed in the five states. The copayment rules in Oregon were also notable for the very sharp marginal increases at higher income levels. Payments to providers were also among the lowest across the five states, and payments were relatively similar for alternative forms of care. This, along with the large share of families in short-term employment preparation activities, may help explain the heavy use of unregulated care by subsidized families. Among all families, the median of the net subsidy value corresponded to 28 percent of the median income of subsidy recipients. Among families with a copayment, however, high copayment rates combined with relatively low provider payments resulted in a median net subsidy value that corresponded to only 15 percent of the median incomes of these families.

In Texas, both welfare and child care policies were in transition during the study period. Although priority for child care subsidies was given to TANF families in employment preparation during the observation period, only about one-third of all families served during this period were receiving TANF when they started receiving subsidies. The large majority of families were working and not receiving TANF. This may reflect the very low TANF benefits and earnings disregards in the state, which made it difficult for families to retain welfare benefits once they started working. The high age-of-youngest-child work exemption also contributed to this mix. The small proportion of subsidized families mixing work and welfare was also consistent with these state policies. Very low TANF benefits and barriers to mixing work and welfare also help explain why the incomes of subsidy recipients were very low relative to state eligibility ceilings.[16] Although Texas had the highest initial and continuing eligibility ceilings among the five states, the population they were serving was far more disadvantaged than the population potentially eligible. Provider payments were also considerably lower than those of other states, but they were generous in comparison to local market rates and similar across forms of care. Although relative care was reimbursed at nearly the same rate as market care, weak regulation of nonmarket forms of care and prohibition of in-home nonrelative care may help explain the very large proportion of Texas children that was enrolled in center care.[17] The median net value of subsidy assistance corresponded to 44 percent of the median income of all subsidy recipients, higher than all states other than Massachusetts. In part, this reflected the heavy use of center care and relatively generous provider payments. It also reflected the very low incomes of the population served in the Texas subsidy system. For Texas families who had a copayment, however, the median net value of assistance corresponded to a much lower 16 percent of median income.

SECTION 5

DYNAMICS OF SUBSIDY USE

Section 4 described the population of families receiving subsidies at the point at which they are first observed entering the subsidy system and the services they received. The following section reports the results of several analyses of the dynamics of that use. The likely *continuity* of subsidy assistance was measured by estimating the length of continuous subsidy receipt for children in each of the states, using the Kaplan-Meier estimation technique to correct for the fact that some spells of subsidy receipt continue beyond the end of the two-year observation period (i.e., they are right censored). The likelihood that children receiving subsidies in a given month continued doing so in the next month (the survival rate) was derived from this estimation. To explore the association of family and service characteristics with spell length, survival rates were disaggregated by type of care, child age, and parent activity status.

To consider the likely *duration* of children's subsidy receipt over a longer period of time, the rate of children's return to the subsidy system within 12 months was calculated for each state. Although this does not provide an estimate of the total time children spent in the subsidy system, it provides information about whether this duration is likely to be longer than a single spell for most children. Finally, the *stability* of children's care while receiving subsidies was estimated by considering the proportion of the total months of subsidy receipt during which the same primary provider cared for the child.

Length of Time Children Receive Subsidies

Continuity is one important aspect of the dynamics of program participation. In the case of child care subsidies, continuity relates to the length of continuous subsidy receipt. For this study, continuous receipt was measured as a spell of subsidy receipt preceded and followed by at least one month of nonreceipt. Analysts used survival analysis techniques to estimate the number of months at the 25th percentile, median, and 75th percentile of children's subsidy spells in each of the states. These estimates correspond to number of months by which 25 percent, 50 percent, and 75 percent of children, respectively, had left the subsidy system.

Table 8a reports Kaplan-Meier estimates of the length of the first observed subsidy spells (for the randomly selected child) that began during the two-year observation period.[18] In all five states, the length of subsidy receipt was short. For 25 percent of children in all five states, subsidy spells ended within three months. Spell length also varied by state. Within thee months, subsidy receipt ended for one-half of the children who had started a spell in Oregon; within seven months, spells ended for 75 percent of all children. In Maryland and Massachusetts, half of spells ended within four to five months and 75 percent of spells within eight to 11 months. Spells were longer in Illinois and Texas. One-half of children in these states received subsidies for six to seven months or less, and 25 percent of children had spells longer than 14 or 15 months.

Table 8a: Kaplan-Meier Estimates of Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State

	Illinois	Maryland	Massachusetts	Oregon	Texas
25th percentile	3	2	3	2	3
Median	6	4	5	3	7
75th percentile	14	8	11	7	14

Note:
Analyses includes all observed spells starting during observational period for Illinois and Maryland.

Figure 12: Survival Rate—First Observed Spell Starting During Observation Period

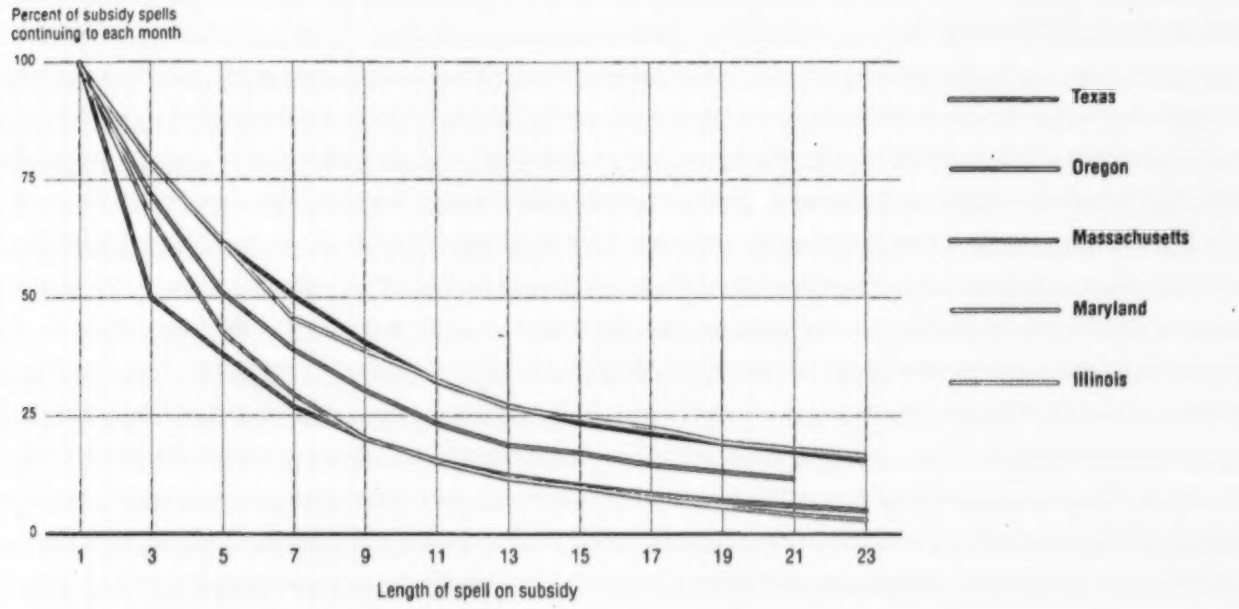

Figure 12 displays these results graphically as children's "survival rate" in the state subsidy systems, (that is, the likelihood that children receiving subsidies in a given month continued doing so in the next month). As these estimates of spell length suggest, the probability that children exited subsidies was very high in all states during the first few months of receipt. By six months, more than half of subsidy spells had ended in Maryland, Massachusetts, and Oregon, and nearly half had ended in Illinois and Texas as well. Although most spells ended quickly in all states, variation in the survival rate across states is clear. Exits were most rapid in Oregon and slower in both Texas and Illinois. By the one-year point, about 30 percent of spells were continuing in Illinois and Texas, in contrast to fewer than 15 percent of spells in Oregon.

These estimates suggest little continuity in children's receipt of subsidy assistance. It is possible, however, that continuity increases over time for families and children. This might be the case if, for example, parents are likely to be in employment preparation activities during their first spell of subsidy receipt and more likely to be employed, and to have more stable child care arrangements, in later spells of receipt. To consider whether subsequent spells of subsidy receipt were longer for children who had multiple spells during the observation period, analysts compared the length of first observed spell[19] to that of the second spell in the two states with the longest and the shortest subsidy spells. In Texas, where children had the longest or most continuous spells of subsidy receipt, the median length second spells of receipt were one month longer than first spells. In Oregon, where children had the shortest spells, there was no difference in the median length of first and second spells. These analyses suggest that the continuity of children's subsidy receipt did not increase much with families' time in the subsidy system.

Although the observation period was relatively short (two years), it is also possible to consider whether the length of subsidy spells increased over time for all families, by comparing the length of spells that began in the first year of the period (July 1997 through June 1998) to those that began in the second year of the period (July 1998 through June 1999) (see Table 8b).[20] During the two-year period of this study, the median length of subsidy spells changed only modestly in the five states. In Oregon, the median spell length remained constant at three months. In Illinois, Texas, and Massachusetts, median spell lengths increased by one month. Maryland was the only state in which spell lengths decreased, by one month.

Table 8b: Change in Estimated Length of Subsidy Receipt in Months (First Observed Spell Starting During July 1997 to June 1998 vs. July 1998 to June 1999), by State

	Illinois		Maryland		Massachusetts		Oregon		Texas	
	1st year	2nd year	1st year	2nd year	1st year	2nd year	1st year	2nd year	1st year	2nd year
25th percentile	2	3	2	1	2	3	2	2	3	3
Median	5	6	4	3	5	6	3	3	7	8
75th percentile	•	•	•	7	7	•	8	8	•	•

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1996 through September 1998.

The Kaplan-Meier method adjusts estimates of duration for incompletely observed or right censored spells of subsidy receipt.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

Analyses includes all observed spells starting during July 1997 to June 1998 versus July 1998 to June 1999 for Illinois and Maryland.

Table 9a: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Parent Activity

	Illinois	Maryland	Massachusetts	Oregon	Texas
Working, not receiving TANF	5	5	7	4	8
Working, receiving TANF	6	4	5	3	5
Not working, receiving TANF	5	4	5	3	4
Not working, not receiving TANF	6	3	5	2	6

Note:

Analyses includes all observed spells starting during observation period for Illinois and Maryland.

Given the variation in both subsidy populations and services, described earlier, it is possible that cross-state variation in spell lengths reflected differences in the types of families served or in the type of care that they used. To consider spell length within more similar groups of families, Kaplan-Meier estimates and survival rates were compared for families that differed in parents' initial activity status, the age of the child in care, and the type of care used during the first month of the spell of subsidy receipt.

Parent Activity

Table 9a compares the Kaplan-Meier estimates of the median spell length for families who were engaged in various activities at the start of the child's subsidy spell. Working, non-TANF families had the longest median spells of receipt in all states other than Illinois, and nonworking families (receiving TANF or not) generally had the shortest spells. (In Illinois, median spell lengths were similar across groups).

Although spell lengths differed across families within states, the pattern of cross-state variation was nearly the same for each sub-group of families. The length of subsidy spells was generally longest in Texas and Illinois, and shortest in Oregon, regardless of the parents' activity status.

Figure 13 illustrates these differences graphically by comparing the survival rates for children in families who were working (without TANF) and those in families who were receiving TANF (without employment). In all states other than Illinois, children in employed families outside the welfare system exited the subsidy system more slowly than children in TANF-recipient families. For TANF-recipient families, subsidy exits were very rapid during the first two months of assistance; in three of the states (Texas, Maryland and Oregon), about one-half of the children in these families had exited the subsidy system within three to four months.

Child Age

Table 9b compares median spell length for families with children of different ages at the start of their subsidy spell. The length of spells did not differ much by child age in three of the states. Spells were one to two months shorter for the oldest children (school-age) in Texas and Massachusetts. When spell lengths are compared across states within groups of fami-

Figure 13: Survival Rate, First Observed Spell Beginning During Observation Period, by Parent Activity

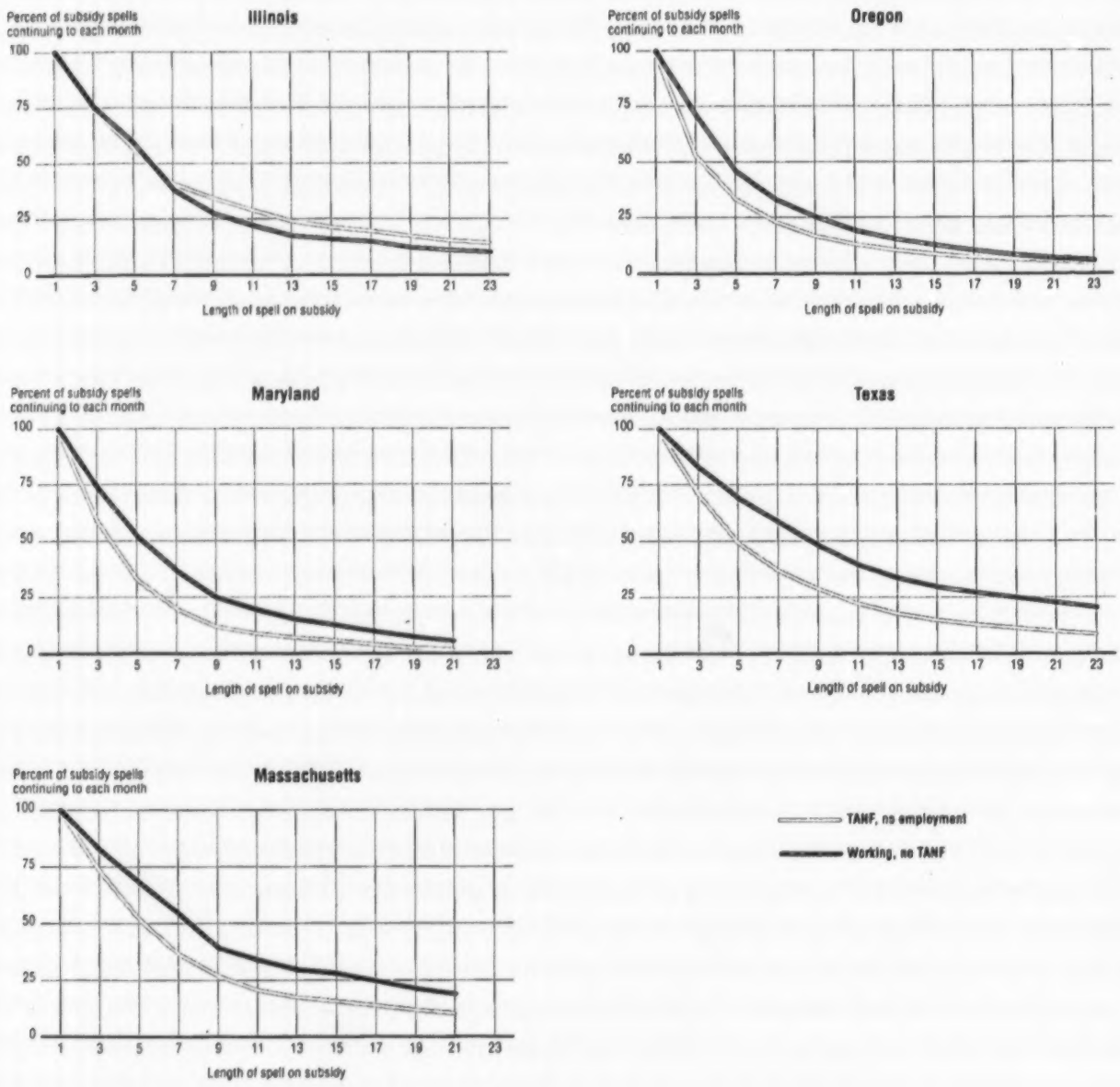

Table 9b: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Age of Child

	Illinois	Maryland	Massachusetts	Oregon	Texas
Infants, birth to 23 months	6	4	5	4	7
Preschool, 24 to 47 months	6	4	6	3	7
School transition, 48 to 71 months	6	4	6	3	6
School age, 72 months and older	6	4	4	3	5

Note:
Analyses includes all observed spells starting during observation period for Illinois and Maryland.

Table 9c: Kaplan-Meier Estimates of Median Length of Subsidy Receipt in Months (First Observed Spell Starting During Observation Period), by State and Type of Care

	Illinois	Maryland	Massachusetts	Oregon	Texas
Center care	5	4	6	3	7
Family child care (nonrelative)	7	4	5	3	7
In-home care (nonrelative)	6	3	4	4	NA
Relative care	6	3	5	3	6

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1996 through September 1998.

The Kaplan-Meier method adjusts estimates of duration for incompletely observed or right censored spells of subsidy receipt.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

Analyses includes all observed spells starting during observation period for Illinois and Maryland.

lies with children of various ages, the ranking of the states by length of spell remained the same: spells were longest in Texas and Illinois and shortest in Oregon for all age groups.

Care Type

Table 9c compares median spell lengths for children using various forms of care during the first month of their subsidy spell. Within states, median spell length varied only modestly, by one to two months at most, for children starting in different forms of care. There was no consistent pattern, across states, in which type of care was associated with longer spells. Children starting in center care had the longest spells in Massachusetts; children in either center or family child care had the longest spells in Maryland and Texas; and children in family child care had the longest spells in Illinois. Although children who started in relative care had somewhat shorter stays (by one month) in Maryland, Massachusetts, and Texas, their spells were as long as those of children in center care in Oregon and slightly longer in Illinois. When median subsidy spell lengths are compared across states within types of care, they generally correspond to the pattern observed for all subsidy spells, with the longest spells observed in Texas and Illinois and the shortest in Oregon and Maryland.

These results are displayed graphically as survival curves in Figure 14, which compares the survival rates for children starting subsidy spells in center care to those starting subsidy spells in relative care. Rates of subsidy exit were similar for both groups of children. The most notable differences were in Illinois, where children starting in center care exited more rapidly than others, and in Maryland, where exits were more rapid for children in relative care.

Reentry to the Subsidy System

The length of a single, continuous spell of subsidy receipt provides a good indicator of the continuity of assistance. But if children cycle in and out of subsidy spells over time, it will not provide a good indicator of the total *duration* of children's subsidy assistance. The 24-month observation period for this study limited options for estimating the duration of subsidy assistance for children and their families over a long period of time. Some indication of this duration is provided by the rate at which children reentered the system for a subsequent spell of subsidy assistance.

Table 10 reports the rate at which children reentered the subsidy system within three, six, nine and 12 months after the end of a subsidy spell (for all children for whom sufficient months of data were available). Return to subsidy receipt was common in all states, but the rate varied across the five states. Among those with completed spells during the observation period, between one-fifth (in Texas) and almost one-half (in Maryland) of children returned to subsidy receipt within three months of the ending of their spell. Over a 12-month period, one-third or more of children in all five states began another spell of subsidy receipt, and as many as 50 to 60 percent returned in Illinois and Maryland. These analyses suggest that the length of a single spell of subsidy receipt does not capture the total duration of subsidy assistance for many children. For one-

Figure 14: Survival Rate, First Observed Spell Beginning During Observation Period, by Type of Care

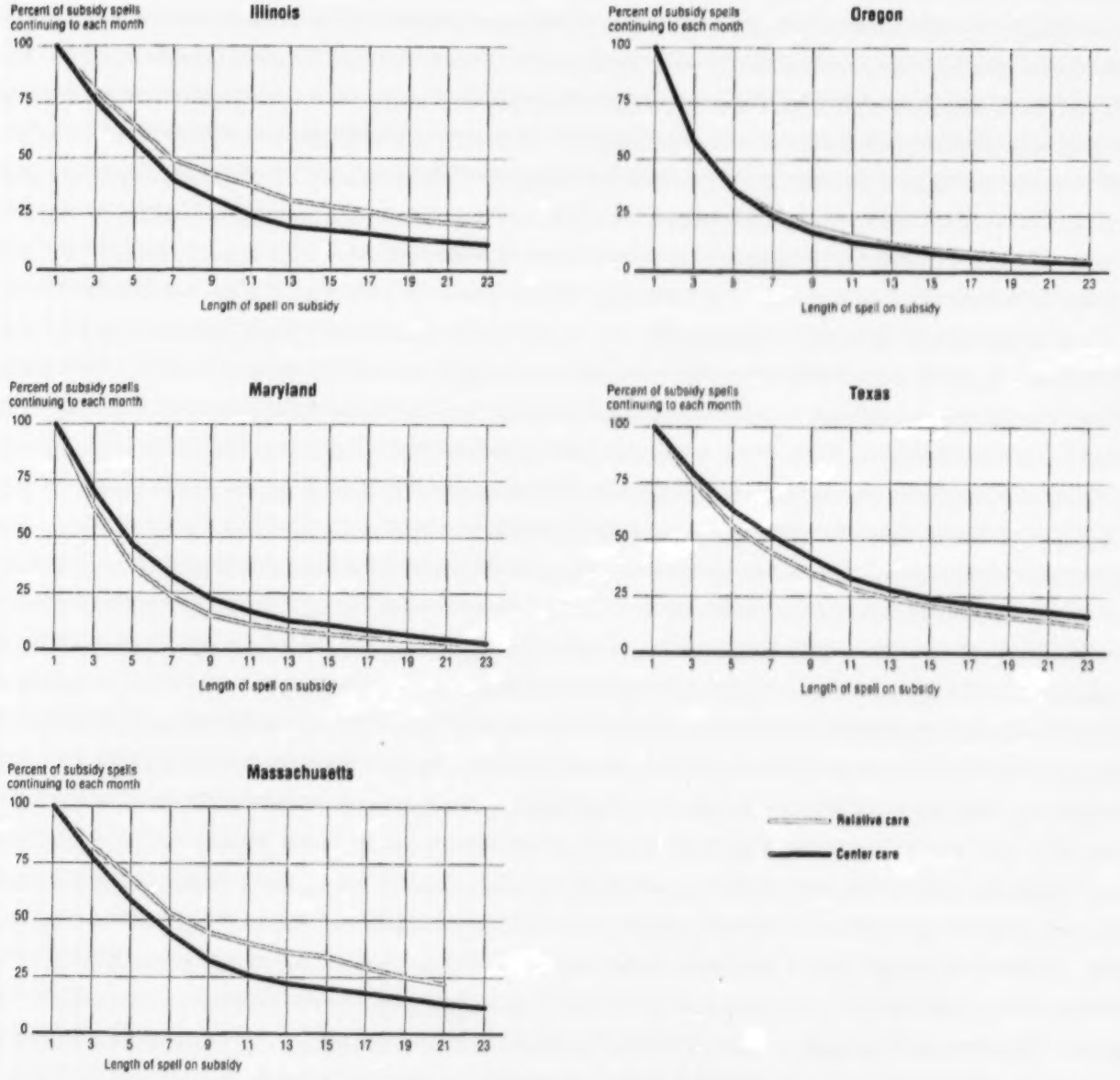

Table 10: Cumulative Percent of Children Exiting Subsidy Spell who Return within Three, Six, Nine, and 12 Months, by State

Interval	Illinois	Maryland	Massachusetts	Oregon	Texas
3 months	32%	46%	28%	24%	20%
6 months	43%	56%	36%	34%	27%
9 months	49%	60%	38%	39%	32%
12 months	50%	58%	40%	40%	35%

Notes:

The observation period in Illinois, Maryland, and Texas is July 1997 through June 1999. The observation period in Oregon is October 1997 through September 1999, and the observation period in Massachusetts is October 1996 through September 1998.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

Table 11: Stability of Provider-Child Relationships, by State

	Cumulative duration of subsidy receipt (months)	Cumulative percent of sample	Mean primary provider ratio	Percent remaining with primary provider for entire subsidy period (PPR=1)
Illinois	3	25%	0.96	93%
	6	51%	0.91	83%
	9	67%	0.84	69%
	12	81%	0.78	60%
	18	94%	0.73	54%
Maryland	3	39%	0.95	76%
	6	62%	0.87	64%
	9	76%	0.82	62%
	12	85%	0.77	53%
	18	96%	0.75	52%
Massachusetts	3	33%	0.94	87%
	6	54%	0.85	72%
	9	70%	0.79	61%
	12	80%	0.75	57%
	18	94%	0.75	58%
Oregon	3	46%	0.91	76%
	6	68%	0.82	52%
	9	80%	0.79	43%
	12	88%	0.77	36%
	18	97%	0.74	29%
Texas	3	34%	0.96	90%
	6	62%	0.91	73%
	9	74%	0.89	67%
	12	84%	0.88	57%
	18	96%	0.85	53%

Notes:

The primary provider ratio is the number of months with the longest provider divided by the total observed months of subsidy receipt.

Data for Massachusetts do not include contracted care arrangements (an estimated 50 percent of all subsidized arrangements in the state) and include voucher recipients for only a portion of the state (approximately 50 percent of all voucher recipients). Because working-poor families were more likely to use contracted child care arrangements, the data for this study reflect the experiences of TANF-related subsidy users.

third to one-half of children, at least, the duration of assistance was greater than the length of a single, continuous spell.

Stability of Care Arrangements

Patterns of exit from and reentry to the subsidy system capture two aspects of child care stability. From the standpoint of children's experience of care, as well as the reliability of care for parents, it is equally important to consider the *stability* of the child-caregiver relationship. The data used in these analyses were limited in this regard because they provided information only during the period of subsidy receipt. From these data it was impossible to observe transitions in children's care arrangements that occurred outside the period of subsidy receipt and which may, in fact, have been caused by the loss of a subsidy.

It is possible, however, to examine the stability of care arrangements while children are receiving subsidies. The research team compared the stability of children's care during subsidy receipt by considering the proportion of the total time in subsidies that children remained with the primary provider (the most common provider during the months of subsidy receipt). Children's time in subsidy was defined as the cumulative number of months that they received subsidies during the observation period (across one or more spells). The primary provider ratio measured the number of subsidized months during which the child continued to receive care from this provider. Analysts also calculated the share of all children (at each cumulative duration) who received care from one provider during the entire period of subsidy receipt.[21]

As shown in Table 11, most children on subsidy in these states remained with the primary provider

These data suggest that while care arrangements were relatively stable for children who remained in the subsidy system for a short time, the stability of providers declined sharply in all states as the cumulative months of subsidy receipt increased.

during all the months they received subsidies. This may be due, in large part, to the fact that the length of subsidy spells is short. It is not surprising that provider stability was lowest in states where continuous subsidy spells were very short, such as in Oregon, and highest in the states where children had longer subsidy spells, such as in Illinois and Texas.

Within this overall pattern, variation is evident across the states. Provider stability was low in Oregon, where only about half of children who received subsidies for six months remained with the same provider, and less than 30 percent of those receiving subsidies for 18 months were with the same person. In contrast, from 73 to 83 percent of children who received subsidies for six months in Texas and Illinois, respectively, stayed with the same provider, and over half of children receiving subsidies for as long as 18 months were with the same person.

These data suggest that while care arrangements were relatively stable for children who remained in the subsidy system for a short time, the stability of providers declined sharply in all states as the cumulative months of subsidy receipt increased. Because many subsidy spells ended within a few months, provider stability may not appear to pose a significant problem. If the end of subsidy receipt leads to the end of the care arrangement, however, children have experienced greater turnover in arrangements than can be observed in these data. Stability appears to be low for the one-third to nearly one-half of children who received subsidies for a cumulative period of more than six months. There is also reason to be concerned about the small percentage of children who were in multiple, unstable arrangements even during short periods of subsidy receipt. Between 5 and 10 percent of children spent less than half of their months of subsidy with the same provider (PPR <0.5) (not shown in Table 11). For these children, quality of care was almost certainly compromised by frequent changes of caregiver.

Discussion: Dynamics of Subsidy Use

The most striking finding from these analyses of subsidy dynamics is the lack of *continuity* in subsidy assistance for most families and in all five of the states. In the state where children had the longest spells of receipt, the median spell lasted seven months; among the remaining states, median spell lengths were as short as three months.

Short spells of assistance may have been due to cycling or "churning" in and out of the subsidy system. Within three months following the end of a subsidy spell, a large proportion of children—between 20 and 46 percent, depending on the state—returned to the subsidy system. By the end of a full year after ending a spell, one-third of children returned in all states and one half or more in two of the five. This suggests that the period of need for many families was longer than the period of a single subsidy spell. It also suggests that, over time, the total *duration* of assistance was longer for some children than the length of a single spell. Subsequent spells of receipt were also short, however, suggesting that while total duration may have been longer for some children, the continuity of assistance was probably no greater.

The continuity and duration of subsidy assistance were related to the *stability* of children's care while receiving subsidies. Children whose cumulative months of subsidy receipt were low were likely to experience only one primary provider during their time in the subsidy system. Two-thirds of children who received assistance for nine months remained with the primary provider for all these months. About one-half of children who had 18 months or more of assistance (a small group) spent all of those months with the same primary provider. Given these results, it is not surprising that provider stability was lowest in states, such as Oregon, where continuous subsidy spells were very short, and longest in the states, such as Illinois and Texas, where children had longer subsidy spells.

The length of children's subsidy spells did not vary systematically with the type of care at the start of the spell. There was also little variation in length by the age of the child at the start of the spell. The length of children's subsidy spells did vary substantially with the initial activity status of parents, and the pattern of variation was reasonably consistent across states.

There was no consistent relationship between the median length of children's subsidy spells in each state and the share of children who returned for subsequent spells of assistance. In Oregon, where children had the shortest median spells of assistance, one-quarter of children returned for a subsequent spell within three months and about one-third within six months. This may indicate that children were churning in and out of short spells of subsidy assistance, perhaps due to features of Oregon's subsidy or TANF programs. The rate of subsequent returns was even higher in Illinois, however, where the median length of subsidy spells was twice as long, while the rate of subsequent spells was lower in Texas, where the median length of spells was the longest.

Although some forms of care, such as unregulated relative care, are often assumed to be particularly unstable, the length of children's subsidy spells did not vary systematically with the type of care at the start of the spell. There was also little variation in length by the age of the child at the start of the spell. This suggests that the variation in the length of subsidy spells observed across the states was not due to the mix of children or care arrangements.

The length of children's subsidy spells did vary substantially with the initial activity status of parents, and the pattern of variation was reasonably consistent across states. Children whose parents were employed had the longest spells of receipt, while children in TANF-reliant families had the shortest. It is quite likely that the variation in spell length observed across the states reflects, in part, the mix of subsidized families in each state who were at work and/or receiving TANF. For example, in Texas, which had the longest median spell length of the five states, the majority of families were employed and not receiving TANF, and these families had the longest subsidy spells of any group. By way of comparison, working non-TANF families also had relatively long spells in Massachusetts, but they comprised only a small portion of the total population served with vouchers; this helps explain why median spell lengths in the state were two months shorter than those observed in Texas.

SECTION 6

UNDERSTANDING VARIATION IN SUBSIDY DYNAMICS

The cross-state comparisons presented in the previous sections provide new information about who states are serving in their subsidy systems, what services they are providing, and how long families are assisted. But these descriptive results beg the question: what factors are associated with more continuity, stability, and total time in assistance? In particular, how do state policies influence these dynamics? To answer these questions, the study team considered both multivariate and more qualitative analyses. Given the limitations of the data, it was not possible to specify a satisfactory multivariate model of the effect of policy on subsidy transitions. Some initial insights about policy were gleaned, however, through qualitative comparison of the dynamics of subsidy use with the policies of each state.

This section refers to a number of tables and figures presented earlier. The main findings on the continuity of child care subsidy receipt (median spell length) are found in Tables 8 and 9, and findings on return to subsidy are in Table 10. The key elements of the five states' child care subsidy and TANF policies are found in Tables 1 and 2.

Multivariate Analyses

Although the study team experimented with multivariate analysis methods, the results are not reported here for several reasons. Two approaches to multivariate analyses were explored: parallel regression analyses of the five state data sets and a multi-level analysis of a pooled dataset. In each, the dependent variable was the probability of transitioning out of a spell of subsidy in the observation month, and predictor variables were drawn from the administrative data (including child/family characteristics and service characteristics). Both approaches revealed substantial heterogeneity in estimated coefficients across states. Both approaches were also fundamentally limited by the lack of sufficient data to estimate a meaningful structural model and the lack of policy-oriented content in a reduced-form model.

Regarding the heterogeneity of the separate sites, the estimated regression coefficients of the separate state models differed substantially. A three-level multi-level (i.e., hierarchical model) analysis also found significant random effects in the estimation of coefficients for most predictor variables. These analyses suggest that the underlying true parameters for the model vary by state.

The differences in the underlying regression parameters may be attributed to differences in state policy, differences in program administration, differences in data sources and measurement, differences in local economic conditions, and/or differences in the preferences and behaviors of subsidy recipients. A multivariate analysis that does not account for this heterogeneity (e.g., a simple regression analysis using pooled data across states) is likely to produce biased estimates.

With regard to the lack of data to build a structural model, the preferred approach would have been to build a structural multi-equation econometric model that would determine all relevant endogenous variables as functions of other variables, both endogenous and exogenous. For employment-related child care, the endogenous variables would include the probability of exit from care, the copayment and subsidy level, employment status, and TANF status. The administrative data available for this study did not provide exogenous measures of these factors, inasmuch as observed characteristics depended on at least one of the others. Particularly compelling, for example, is the dependence between employment and child care variables. Parents' employment status and child care use are directly related, insofar as parents who are employed are more likely to need child care and parents who have child care are more likely to obtain employment. Yet employment and child care use are observed simultaneously in the

administrative data; it is impossible to construct an exogenous measure of either employment (to estimate child care use) or child care (to estimate employment). Likewise, service characteristics that may be associated with employment and child care use (such as copayment and provider payment levels) are observed only when parents are receiving subsidies. As a result, almost all of the variables that are available for multivariate analysis are endogenous with employment and child care use. Having few exogenous variables made structural modeling problematic because estimation methods used in simultaneous equation models require a sufficient number of exogenous variables.

As a second-best alternative to structural modeling, one approach is to estimate a single reduced-form equation for each endogenous variable. Each reduced-form equation determines one of the endogenous variables as a function of all the exogenous variables in the system. When estimating reduced-form equations, it is not necessary to estimate every equation in the system. It is acceptable to estimate just the equation(s) of interest. It is this attribute of reduced-form equations that makes them so useful.

Regrettably, in this case, the reduced-form approach has the undesirable attribute that many variables of great interest would have been left out of the estimated equation because they were endogenous. For example, if an analyst were interested in the effect of subsidy value on the probability of exit, the reduced-form equation would provide no information because the endogenous variable subsidy value could not be included in the reduced-form equation for probability of exit. Only a few truly exogenous variables are available—seasonal dummies, time trend, number of children, age of child—and these had little policy relevance. For example, the age of the child may have an influence on the probability of exit, but this finding has no particular policy implication.

Qualitative Analysis

Although the data for this study did not support formal tests of association, the rich qualitative data on state TANF and child care policies can be used to examine the consistency of the empirical results with state policy choices. Cross-state variation in the dynamics of child care subsidy use, including the continuity, duration, and stability of services, cannot be explained by any single policy. But the interaction of child care and TANF policies may well influence these dynamics, in both expected and unanticipated ways.

It seems likely that state TANF policies explain some of the cross-state variation in the dynamics of subsidy use, primarily through their influence on the types of families that were served in each system. For example, the length of children's subsidy spells was related to the work and welfare status of their parents (as shown previously in Table 9a). State TANF policies that influenced the mix of employed and TANF-reliant families in the subsidized population may therefore explain a portion of the cross-state variation in the length of subsidy spells. In Texas, for example, children in non-TANF, employed families had the longest spells of subsidy receipt, and state TANF policies may have increased the proportion of these families with policies—such as low TANF benefits and earning disregards—that deterred welfare use and encouraged rapid transitions to employment. In Oregon, children in families who were neither receiving TANF nor working had the shortest spells of receipt, and state welfare reform policies increased the number of these families through up-front diversion policies.

The correspondence of state TANF policies with cross-state variation in subsidy reentry rates is less clear. If children's churning in and out of the subsidy system was related to their parents' activities, there should be more churning—as measured by reentry rates—in states where TANF recipients in short-term job preparation activities dominated the subsidy rolls. In fact, the rate of reentry was highest in Maryland, where families were about equally likely to be working without TANF, working with TANF, and receiving TANF without employment. Likewise, the two states with the highest share of subsidized families in employment had both a relatively high rate of reentry (in Illinois) and a low rate (in Texas).

Although state TANF policies may have influenced the mix of families receiving child care subsidies in each state, they cannot account for the variation in the length of subsidy spells for children from similar families across states. For example, children in families who were working and not receiving TANF had

Although state TANF policies may have influenced the mix of families receiving child care subsidies in each state, they cannot account for the variation in the length of subsidy spells for children from similar families across states.

median subsidy spells of eight months in Texas and only four months in Oregon (see Table 9a). This difference cannot be attributed to the mix of families in the subsidized population.[22] Policies that influenced the incentives and barriers to subsidy participation, and those that affected the transfer and earned income of families, may explain some of this cross-state variation.

Some child care policies corresponded with cross-state variation in subsidy dynamics in the direction that would be expected. The frequency of recertification was consistent with cross-state variation in the length of subsidy spells, with shorter spells in states that required more frequent recertification. Indeed, the median length of subsidy spells in four of the five states was the same as, or one to two months shorter than, the usual period of eligibility. This is consistent with the expectation that recertification imposes burdens that reduce the value of subsidies and deter families from the system. It is also consistent with the observations of child care professionals who believe that many families drop out of the system at the point of recertification.

It is interesting to note that cross-state variation in the rate of reentry to the subsidy system corresponded closely to state policies regarding service availability. Reentries were most common in states that had an explicit or implicit guarantee for both TANF and non-TANF employed families (Illinois and Maryland). They were lowest in states that restricted access, either by conducting minimal outreach (Oregon), or by maintaining waiting lists for services (Texas). Implicit and explicit rationing policies may have affected overall subsidy durations by increasing the difficulty or uncertainty of returning to the child care subsidy system once a spell of receipt had ended. The association between other policy variables and cross-state variation in subsidy dynamics was ambiguous and highlights the complexity of policy interactions.

Some child care policies did not have the anticipated association with subsidy duration. This may be due, in part, to the interaction of multiple state policies. For example, the level of copayments required of families was not consistently associated with length of subsidy spells across the five states. One state (Oregon) had high copays at high income levels and had the shortest average spell duration; yet another (Maryland) had low copays and also had a short average spell length. In addition, the level of copayments did not correspond closely to cross-state variation in rates of reentry. Although high copayments may have influenced some families to leave the system, particularly at higher-income levels, they did not appear to have a similar effect on parents' return to the subsidy system. It is possible that families who returned to the subsidy system were those facing lower copayments, due to low incomes and/or TANF receipt.

The level of payment to providers (see Table 7) did not correspond closely to cross-state differences in the length of subsidy spells. Although higher levels of provider payment would be expected to increase the length of subsidy use (by increasing the value of subsidies for both parents and providers), children in states with the highest reimbursements (relative to the prevailing market rates) had both the longest observed spells of subsidy receipt (in Texas) and the shortest (in Maryland).

Likewise, the size of the provider payment did not correspond closely with cross-state variation in the stability of children's care while receiving subsidies. Although higher payments might be expected to increase stability, by increasing the incentives and rewards for participating providers, the most stable arrangements were observed in states with both relatively high payments in comparison to market rates (Texas) and relatively low payments (Illinois).

It is particularly surprising to observe that the median length of subsidy assistance in the state was not consistently associated with the level of the state's eligibility ceiling (see Table 1). Researchers expected to observe longer spells of assistance in states with higher ceilings, i.e., eligibility rules that

It is particularly surprising to observe that the median length of subsidy assistance in the state was not consistently associated with the level of the state's eligibility ceiling.

allow families to remain in the child care subsidy system longer as their incomes rise. Instead, children had the longest subsidy spells in a state with the highest ceiling relative to the state median income (Texas) and one of the lowest (Illinois). This is less surprising when the actual incomes of subsidized families are considered relative to the eligibility ceilings of each state. Texas had highest eligibility ceiling, but the median income of subsidized families was only 13 percent of this ceiling; in Illinois, with a lower official ceiling, the median income of recipients corresponded to 51 percent of the ceiling. In a state such as Illinois, families may indeed have "earned out" of the subsidy system when their income disqualified them for assistance. In states such as Texas, however, other factors were apparently moving families out of the child care subsidy system well before their incomes disqualified them for assistance.

Although state policies may have influenced parents' use of alternative forms of child care through, for example, provider payment rates and quality regulations, the implications for subsidy dynamics are uncertain. It is often assumed that nonmarket forms of care, such as relative and in-home care, are less stable than regulated care in child care centers and family child care homes. Although the median length of subsidy spells was indeed shorter in the state with the highest proportion of children in unregulated care (Oregon), it was longest in states with a high proportion (Texas) and a low proportion (Illinois) of children in regulated care (see Table 6).

On the other hand, the share of children in a state who were in market forms of care corresponded to average variations in the stability of arrangements during subsidy months. In Texas and Massachusetts, 85 percent or more of children were in regulated care settings, and most were in center care; and in these two states, children in child care subsidy for one year or more were likely to have remained with a primary provider the entire time. In the state (Oregon) where these children were least likely to have remained with a primary provider, two-thirds of children were in unregulated care and one-fifth in child care centers.

On the other hand, in Illinois, nearly 60 percent of the children were in unregulated care yet 60 percent of children on subsidy for one year or more remained with the same provider the entire time. These findings suggests that state policies that influenced parents' use of alternative care may not have affected the continuity of subsidy assistance and that further study is needed to investigate the possibility of a relationship between stability of children's care and type of arrangement while in the subsidy system.

SECTION 7

CONCLUSIONS AND IMPLICATIONS

Conclusions

The diversity of the populations served and the diversity of the services provided across the five states are two of the most striking findings of this study. The devolution of already highly decentralized child care subsidy programs in the 1990s increased opportunities for state policymakers to determine who receives subsidies, what types of providers are subsidized, how much providers are paid, and what portion of costs are paid by families. These policy choices have interacted, sometimes in unexpected ways, with other state policy decisions about welfare benefits and client obligations.

One consequence of these policy choices is that states serve very different populations of families in their subsidy systems. In Illinois, for example, the subsidy system was dominated by employed families, many of whom also received TANF; in Oregon, employed families made up only one-half of the subsidized population and rarely mixed welfare with work. In Illinois, the median incomes of subsidized families were about one-quarter of the state median income, whereas in Texas, they were only 12 percent of the state median income.

A second consequence of these policy choices is that states now provide varying types and levels of service to families. In Texas, for example, nearly 80 percent of children were in center care, in contrast to 18 percent of children in Oregon. In Illinois, nearly all families had a copayment, and this copayment averaged $56; in Massachusetts, nearly all voucher families were exempt from copayment, but those who paid had an average payment of $82. In Texas, family copayments rose steadily with income, whereas in Oregon they remained low until families had incomes of around $1,500 per month and then began to climb steeply.

One common characteristic across these states was the low level of continuity in subsidy assistance. Within seven months, subsidy assistance ended for one-half of children in all five states. Many children also reentered the subsidy system, although the rate of reentry varied and did not exceed 60 percent in any state. For these children, the total duration of assistance was longer than that observed for a single spell. Because subsequent spells of receipt were about the same length as the first observed spell, however, the continuity of the assistance was probably no greater either. Due to the nature of the data, only limited observations can be made about the stability of children's care arrangements. While children were receiving subsidies, they had a good chance of remaining with one provider, especially if their spell of subsidy receipt was short. Among children who received subsidies for a full year, however, the proportion cared for by the same primary provider ranged from 36 to 60 percent.

The duration and stability of subsidy assistance varied across the five states. Oregon was notable for having both the shortest spell lengths and the least stable provider arrangements for children receiving subsidies. Median subsidy spells lasted about twice as long in both Illinois and Texas than they did in Oregon, and rates of provider stability were generally higher as well. These dynamics are likely to be interrelated in that children with multiple short spells are less likely to remain with the same provider. Somewhat surprisingly, the median length of children's spells in each state was not consistently associated with the rate at which children reentered the state's subsidy system.

Because the data for this study did not reveal why children left the subsidy system, it is difficult to interpret these findings. Short subsidy spells and churning in and out of the system may be due to the episodic nature of parents' employment activities or to problems associated with child care arrangement or subsidy receipt. Regardless of the reason, the lack of continuity and short duration of subsidy assistance is of concern. It is unlikely that parents who

It is unlikely that parents who were poor enough to qualify for subsidies had achieved a level of self-sufficiency such that they no longer needed subsidies within the few months that their children received assistance.

were poor enough to qualify for subsidies had achieved a level of self-sufficiency such that they no longer needed subsidies within the few months that their children received assistance. Indeed, the fact that as many as one-half of children returned for a subsequent spell of subsidy assistance within one year suggests that many parents remained eligible for assistance.

The question of how state policies influence subsidy dynamics was a primary motivating question for this study. Unfortunately, the administrative data available for this study did not support microanalyses of policy impacts. Qualitative comparisons of the variation of subsidy spells and state policies suggested some preliminary insights about which policies may, and which may not, matter for subsidy continuity.

It is clear that variation in the dynamics of child care subsidy use cannot be explained by any single child care policy. Variation in state TANF policies may explain some of the cross-state variation in the length of assistance, through its influence on the mix of families in the subsidized population. These policies cannot account for substantial cross-state variation in spell length among children in similar families nor do they appear to correspond with rates of reentry to the subsidy system. Other state policies may have explained some of this cross-state variation in subsidy dynamics by creating incentives or barriers to participation. It is possible that higher copayments are associated with shorter median spells of receipt, but this correspondence was not seen consistently across the states. The frequency of recertification in the state was also consistent with the median length of subsidy spells, as a shorter median length of subsidy receipt was found in states that required more frequent recertification. Interestingly, the rate at which children reentered the subsidy system for a subsequent spell of assistance was highest in states with the strongest explicit or implicit guarantee of services.

The level of payment to providers did not correspond closely to either the median length of subsidy spells in the state or the average stability of children's care while they were receiving subsidies. This may have been due, in part, to variation in the level of family copayments, which reduced the value of assistance for families. State eligibility ceilings for subsidy assistance also had little correspondence with the median length of subsidy spells and the rates of reentry. This may be explained, in part, by the fact that the incomes of subsidized families were substantially lower than the income ceilings set by state policy. It is possible that state policies influenced subsidy dynamics by influencing parents' choice of care arrangements. The usual care arrangements used by families in each state did not correspond with the length of subsidy spells; however, they did correspond generally with the average stability of children's care while they were receiving assistance.

Implications for Research

These analyses raise a number of questions for future research. Cross-state variation in recipient populations and services underscores the importance of even basic research into the questions of who is being served with public subsidy dollars and what services they receive across the 45 states not in our study. The lack of continuity and short durations of assistance and frequency of reentry to the subsidy system deserve further research, both to describe the dynamics of subsidy receipt and to identify factors that are associated with more stable child care subsidy experiences.

These analyses also raise a number of cautions and suggestions for future research. State administrative data are figuring more prominently in analyses of welfare and other government programs. This study suggests some of the strengths and limitations of such data for policy analyses. With information on all families served in the subsidy systems of these states, the administrative data provided exceptionally large and representative data sets for analysis. The data sets were particularly useful for describing the dynamics of program participation. However, because

The lack of continuity and short durations of assistance and frequency of reentry to the subsidy system deserve further research, both to describe the dynamics of subsidy receipt and to identify factors that are associated with more stable child care subsidy experiences.

data elements were determined by administrative need rather than research priorities, the data were very limited in terms of both the number and quality of variables. The endogenous nature of the measures in the administrative data also imposed significant limitations for modeling the factors associated with the dynamics of program participation. Future studies are likely to encounter the same dilemmas if they rely exclusively on administrative data from only one program. In order to specify satisfactory models, researchers will need to augment the child care administrative data. This could be done by linking several administrative data sets, as has been done by Witte and her colleagues in studies of child care subsidies.[23] It could also be done by linking administrative and survey data, as demonstrated in studies of welfare and Supplemental Security Income (SSI) transitions in California.[24]

In the case of child care subsidy dynamics, it was difficult to even interpret the meaning of the transitions that were measured by the data. Because subsidy payment data do not collect information on individuals when they are not participating in the system, it was impossible to know why a spell of child care subsidy receipt ended. A subsidy transition may have been due to a change in parents' activity status, a change in child care arrangements, the loss of a subsidy, administrative barriers in the recertification process, or other reasons. Given this, it is difficult to interpret a transition from subsidy as a "good" or "bad" event. Linking child care subsidy payment data to other administrative data, such as wage and TANF records, as has been done in Texas, would allow much more detailed analyses and interpretation of these transitions.

This is one of the few studies to use administrative data from the child care subsidy systems and one of the only ones to use data from the child care systems of multiple states. A key methodological insight of the study concerned the potential noncomparability of variables and effects across states. During the process of constructing the data sets for analysis it became clear to members of the research team that some of the data elements were not consistent across state data sets. Some of this noncomparability was due to measurement. Measures of income, for example, included only earnings in Oregon and Texas and both earning and transfers in other states. Other data elements were less than fully comparable due to more subtle cross-state differences. For example, all five data sets contained an indicator for whether children's care was regulated. Because state regulations varied in terms of which providers were subject to regulations, and the stringency of those regulations, it was difficult to know to what extent "regulated care" was actually comparable across states. Finally, some data elements were not fully comparable because they had very different implications in different policy contexts. For example, although the measure of "TANF status" was similar across states, the *meaning* of this variable for subsidy dynamics differed due to the different characteristics of the TANF programs in each state.

These issues of noncomparability raise two important cautions for future research in this area. First, it is critical for researchers using administrative data sets from multiple states to understand what the data elements measure. This requires both a detailed knowledge of the administrative processes through which the data were collected and used and a detailed knowledge of the relevant policies in each state. Second, there is no reason to assume *a priori* that variables will have a constant association across states. As both the parallel and pooled, multi-level analyses for this study found, different parameter estimates were obtained in different states for the same variable. This raises important cautions about pooling data for analysis without accounting for the possibility that the true parameters, or underlying associations, vary across states or sites.

The results of this study suggest that, currently, the assistance families receive is not very continuous, does not last very long, and may be associated with substantial turnover in their children's care arrangements.

Implications for Policy

The results of this study do not provide specific lessons for the development of child care subsidy policy. The sample of five states was too small, and the administrative data sets too limited, for the study team to identify policies that hinder or support families' use of subsidies. The results do suggest, however, two areas of concern for future policy.

The first concern relates to equity. Social policy devolution is often praised as a mechanism for increasing local political control and responsiveness. It is just as often criticized because it eliminates national standards and due process protections for applicants and clients who are often socially and economically vulnerable. This tension is apparent in child care subsidy policies. The consolidation of categorical federal child care programs into the CCDF and TANF block grants has given states and localities new opportunities to develop child care systems that are responsive to local needs and local markets. At the same time, it has contributed to increasing variability in child care programs. As these results suggest, essentially similar families have different likelihoods of receiving assistance, depending on the state in which they live. Once they are in the system, families have different service options, and face different costs and benefits, depending on where they live. This raises important questions about whether the public child care subsidy system is providing assistance equitably to needy families.

The second concern relates to the specific dynamics observed in this study. A number of studies have documented low and variable rates of participation in subsidy programs among the low-income populations of different states. This study suggests that in addition to having trouble accessing subsidy assistance, low-income families may be having trouble retaining that assistance. One of the clearest conclusions from decades of research on welfare dynamics and the employment of low-educated workers is that mothers in the low-wage job sector experience both high levels of job instability and low levels of earnings growth over time. This suggests that low income families exiting welfare, and other working poor families, are likely to need child care subsidy assistance for a long period of time. The results of this study suggest that, currently, the assistance families receive is not very continuous, does not last very long, and may be associated with substantial turnover in their children's care arrangements. These dynamics do not bode well either for families' economic security or for children's healthy socioemotional development.

Data

Perhaps the most complex task for the study team was the conversion of administrative data to comparable and analyzable longitudinal data sets. Raw data from the states' subsidy payment files were obtained for services during 24 calendar months in each state, covering the period of July 1997 through June 1999.[25] These data include information on children receiving child care subsidies, their families, and the child care providers who receive payments for services. The information in these data sets relates specifically to the information that is needed to determine a family's eligibility for child care assistance and to make the appropriate payment to the provider caring for the child.

It is important to note that data limitations made it necessary to exclude some groups of families receiving child care subsidies from the analysis in some of the states. Administrative data sets are usually collected according to the source of the funding or by the type of payment arrangement that is made. In the area of child care subsidies, these tendencies introduce two complexities. In addition to funding from the Child Care and Development Fund, states can and do use many other sources to provide child care subsidies to low-income families and these may or may not be included in their CCDF pool of funds, and thus, in this administrative data set. In addition, although federal law stipulates that states must use funding from the CCDF program to provide vouchers so that families have a choice of all legal child care arrangements in their community, states can also provide subsidies through contracts with child care programs, in which the state enters into an agreement with a child care provider for a specified number of slots. The data collected from contracted programs often are not comparable to those for the voucher programs, and data collection frequently is not even automated.

For the five states in the study, the data include almost all of the child care subsidy funding that is delivered through each state's voucher program. (See Appendix Table A.1.1 for a list of the funding sources of the child care subsidies included in the study.) The administrative data set developed for each state, however, did not include children receiving child care that was paid for through states' systems of child care contracts, where they existed. The share of total subsidy assistance represented by the contracted programs—and thus the proportion of children and families excluded—varied by state. In Maryland and Texas, all subsidy assistance is provided through vouchers. In the remaining three states, families

Table A.1.1: Financing Streams Included in Study Data, by State (1997 to 1999)

	Illinois	Maryland	Massachusetts	Oregon	Texas
Federal Child Care and Development Fund (CCDF)	Yes	Yes	Yes	Yes	Yes
Funds transferred from federal TANF block grant to federal CCDF	Yes Since FFY99	Yes Since FFY98	Yes Since FFY97	Not transferred in state	Yes Since FFY 97
Federal TANF block grant	Yes Since FY99	No[a]	Yes Since FFY98	Yes	Not used in state
State only funds (above required matching funds)	Yes	Not used in state[b]	Yes	Yes	Not used in state[e]
Federal Social Services block grant (Title XX)	Yes	Not used in state	Yes	Yes	Not used in state
Other	Not used in state[c]	Not used in state	Not used in state[d]	Not used in state	Not used in state[e]

[a] Maryland used TANF funds in 1998 and 1999 but not for direct subsidies.

[b] Maryland and Texas general revenue funds used only as maintenance of effort and matching funds for CCDF expenditures.

[c] Illinois also uses federal Title IVE funds and state child protective service funds, but data on children funded from these sources are not included in this study.

[d] Massachusetts also used small amounts of state child protective service funds in FFY 98 and federal Title IVE funds in FFY 99.

[e] Texas uses additional Child Protective Service Funds but these are not included in the data analyzed for this study.

receiving contracted care were not included in the study data: approximately 5 percent of all subsidy assistance in Oregon, approximately 20 percent in Illinois, and approximately 50 percent in Massachusetts. Data for Massachusetts are limited in another important respect, which in turn further limits their representativeness. They were available for only part of the state (the city of Boston and its western suburbs, a number of smaller metropolitan areas—Springfield/Chicopee/Holyoke, Lowell, and New Bedford/Fall River—and the rural areas of Hampden, Bristol, and Plymouth counties). The sample captures an estimated 50 percent of all voucher-based assistance. Both for this reason, and because the types of families served in the voucher and contracted-care systems differed (with vouchers concentrated among families in and exiting the TANF program), results for Massachusetts should be interpreted cautiously as representing only a portion of subsidy recipients in the state.

The administrative data for each state were transformed to a family-level analysis sample by randomly selecting one child from each family that received any subsidy assistance during the 24-month observation period. This sampling approach retains all families who ever received subsidies but analyzes the length of subsidy spells for only one child per family. Results are interpreted as the experience of families served in the subsidy system, with equal representation of families regardless of the number of children who receive subsides. The family-level observations were then reconfigured into longitudinal files, using unique family and child identifiers to capture data for all months during which the family received a subsidy for the selected child.

The analysis sample was further restricted by excluding cases in which the randomly selected child was receiving a subsidy during the first month of the observation period (i.e., the spell was left censored). Between one-quarter and one-third of cases are excluded due to left censoring (See Table A.1.2). The exclusion of these cases could bias results by eliminating cases with the longest duration of receipt. Because median spell length has been estimated to last five to 12 months in prior studies,[26] the research team did not expect that this would substantially bias the result. In order to confirm the expectation that the population in the analysis sample was similar to the entire population, a separate analysis (not shown) compared the characteristics of families in the full and analysis samples. This analysis found only modest differences. The analysis sample is similar to the universe of subsidy cases in terms of TANF status, single parenthood, care arrangements, and use of regulated care. Families retained in the analysis sample have slightly lower incomes and slightly younger children than do families in the universe of subsidy cases. These differences may reflect differences between families who have longer and shorter periods of receipt, or differences in the types of families served over time.

As a further test of the possibility that the 24-month observation period and exclusion of left-censored spells might bias estimates of subsidy length, analysts on the Texas team made use of a larger data set covering 60 months. A comparison of mean and median spell lengths estimated with the 24- and 60-month observation periods revealed only modest differences: the mean length was nine months in the 24-month sample and 10 months in the 60-month sample (the medians were seven months in the 24-month and five months in the 60-month sample). Although the research team does not have data to perform similar analyses in the remaining four states, the analysis of the Texas data increases confidence that left censoring does not substantially bias results.

Table A.1.2: Number of Observations in Analysis Samples, by State (1997 to 1999)

	Illinois N (%)	Maryland N (%)	Massachusetts N (%)	Oregon N (%)	Texas N (%)
Total sample	130,112 (100%)	34,569 (100%)	20,237 (100%)	39,386 (100%)	125,584 (100%)
Analysis sample (includes only cases for which first month of receipt is observed)	98,321 (76%)	24,135 (70%)	15,202 (75%)	24,879 (64%)	87,718 (70%)
Excluded sample (left-censored observations)	31,791 (24%)	10,434 (30%)	5,035 (25%)	14,338 (36%)	37,866 (30%)

Measures

Measures used to describe the populations served in each of the five states were constructed directly from the administrative data. Variables were retained only if they were present and reasonably comparable across all five states. For descriptive analyses, measures use data from the first month of the first observed spell of subsidy receipt for the randomly selected child.

Family income includes both earned income and transfer income as reported in the subsidy payment files. Different policy and administrative practices in states regarding eligibility determination led to income being measured inconsistently among the states, in terms of the incomes of which members of a child's household counted toward eligibility and whether cash assistance payments were included in the income calculation. The study team made the income measure as comparable as possible. Data from the subsidy records in Illinois and Maryland include earned income for all household members along with public assistance payments. In Texas, due to a large number of missing values in the subsidized child care files, the subsidy records were merged with TANF and Unemployment Insurance wage records to obtain individual earned income and public assistance payments. In Oregon, the subsidy payment data include household earnings only; public assistance payments are imputed as the maximum grant, given family size. In Massachusetts, subsidy data include individual earnings only; public assistance payments are imputed as in Oregon.

If the definition of income includes all members of the household and actual cash assistance payments, then researchers would expect that total household income may be underestimated in Texas and Massachusetts (where earnings of other household members are not included) and may be overestimated in Massachusetts and Oregon (where maximum rather than actual public assistance payments are used). In Illinois, a small number of cases (631) had incomes of $1 due to local data entry practices (actual incomes are not recorded for families who receive subsidies for employment and training or for child-only cases in which the adult does not receive cash benefits). These cases may bias estimates of family income in Illinois downward by a small amount.

Additional family and service characteristic measures include the age of the randomly selected child, the total number of children for whom the family received subsidies, and the welfare and employment status of the family. Parents' employment status and welfare receipt were measured as indicators of the reasons the target child was eligible to receive subsidies. Measures of payments to providers and copayment requirements for parents were calculated at the family level, including benefits received and copayments paid on behalf of all subsidized children. Copayments were measured both in actual dollars and as a percent of median income of subsidized families. The type of care used for the randomly selected child was coded as center care, family child care (nonrelative), in-home care, or relative care.[27]

A spell of subsidy receipt is defined as one or more consecutive months of subsidy receipt that were preceded and followed by one or more months where the child did not receive subsidies. Analyses of spell length were restricted to the first observed spell for the randomly selected child.[28] The use of a single month break to mark the beginning and ending of spells differs somewhat from the two- or three-month definition used by many analysts who have studied the length of welfare receipt. Analysts used the shorter one-month period for two reasons. First, the subsidy payment data report the months of service for which payments are made, after adjustments for overpayments, recoupments, and other administrative corrections. Months without subsidy, therefore, can be interpreted as actual interruptions in service. Second, because the cost of child care is usually substantial relative to the income of families poor enough to qualify for subsidies, analysts assume that even a one-month interruption in child care subsidies is a significant event for families (either an interruption in the child care arrangement or the assumption of child care payments by the family). An analysis (not shown) using two different definitions of spell breaks (one and two months) produced roughly comparable estimates of subsidy spell length.

Appendix 2: Additional State Child Care Subsidy Policies

Administrative Context

The institutional arrangements for the financing and delivery of child care assistance are the most basic factors influencing who will be served in subsidy systems and what services they will receive. These arrangements set the boundaries of service availability by allocating responsibility to agencies with particular missions and organizational structures and by structuring the process through which families obtain assistance. The following section provides a brief overview of the state administrative structures and selected elements of local subsidy management systems in the five states and considers some of the implications for families' ability to receive and retain subsidies.

State Administrative Structure

Each of the states in this study employed an alternative approach to the organization of child care subsidy services (See Table A.2.1). States varied in the use of single or multiple state agencies to administer funds, in the extent to which administration of subsidy services was devolved to local entities, and in the use of single or multiple forms of subsidization.

The Illinois subsidy system was characterized by the consolidation of administration and the expansion of child care to income-eligible families. In July 1997, Illinois merged the administration of child care subsidies for low-income families—formerly divided between two departments—into a new agency, the Illinois Department of Human Services (IDHS). Until that time, the Illinois Department of Public Aid had administered child care vouchers for families who were currently or formerly on AFDC or TANF and the Illinois Department of Children and Family Services had administered contracts and some vouchers for low-income working families. With the creation of the new program, IDHS (which is also the state's TANF agency) assumed responsibility for both the voucher program—administered through regional Child Care Resource and Referral agencies—and contracted care. As Illinois created its new child care subsidy program, the state also made a formal commitment to serve all income-eligible working families, regardless of TANF status. Subsidies were provided through a combination of voucher (approximately 80 percent of subsidies) and direct provider contracts (about 20 percent).

At the start of the Massachusetts observation period (October 1996-September 1998), the state divided administration of child care subsidies among three departments. The Department of Transitional Assistance (DTA) administered child care vouchers for families currently and formerly receiving TANF, while the Department of Social Services administered child care contracts primarily to serve low-income working families. In addition, the Massachusetts Department of Education administered the state's prekindergarten program, operated through grants to Community Partnership Councils (CPCs).[29] Similar to Illinois, in July 1997 Massachusetts consolidated much of its child care administration into a new entity, the Office of Child Care Services (OCCS), responsible for both voucher and contracted care. Though coordinated with the work of the new OCCS, the CPC program remained in the Department of Education. Statewide, approximately 50 percent of subsidies were paid through OCCS vouchers, 30 percent through OCCS contracts, and 20 percent through CPCs.[30] Regional Child Care Resource and Referral agencies administered child care vouchers for DTA/OCCS.

The child care subsidy system in Maryland was notable for the simplicity and continuity of its administrative structures. During the observation period, as well as the prior period, child care subsidies were administered through the Department of Human Resources (DHR), the state's TANF agency. Maryland's subsidy system was exclusively voucher based. In most cases, TANF and non-TANF parents gained access to vouchers through the same system at local DHR offices. A notable exception was Baltimore City, where TANF families were served at local offices and non-TANF families were served at one central location.

The Oregon subsidy system was more complex than the other states' systems. Administration of the CCDF block grant was housed in the Child Care Division (CCD) of the Employment Department. Child care vouchers, which accounted for more than 95 percent of subsidy assistance, were administered by

Table A.2.1: Administrative Structures, by State (1997 to 1999)

	Illinois	Maryland	Massachusetts	Oregon	Texas
State Administrative Structure					
Administering agency	Department of Human Services	Department of Human Resources	Office of Child Care Services	Child Care Division of Employment Department and Adult and Family Services Division of Department of Health and Human Services	Texas Workforce Commission, usually through contracts with local Workforce Development Boards
Type of subsidy assistance	Vouchers and contracts	Vouchers	Vouchers and contracts	Vouchers and contracts	Vouchers
Local Management Systems					
Local application site	Local Child Care Resource and Referral Agency or contracted provider	Local welfare office	Local Child Care Resource and Referral Agency or contracted provider	Local welfare office or contracted provider	Local welfare office, employment service program or child care management system agency
TANF and non-TANF applicants served by local same agencies?	Yes	Yes (except Baltimore City)	Yes, though TANF applicants also must receive prior authorization at the local welfare office	Yes	Varies by region
Phone or mail application and recertification possible?	Yes	Yes	Application, no; Recertification, yes	Yes	Varies by region
Frequency of recertification	6 months	Up to one year; actual period varies among local offices, average 3 months for TANF clients and 6 months for non-TANF clients	From 1 to 6 months depending on TANF and employment status	Voucher clients every 3 months; caseworkers have authority to set to between 1 and 12 months	6 months for non-TANF clients; TANF clients in Choices program remain eligible until Choices eligibility changes

Adult and Family Services (AFS, the TANF agency) in the Department of Human Services. CCD and AFS also administered a small number of additional subsidies through direct provider contracts; these contracts were designed to reach high-need populations including teen parents, immigrants, and parents participating in alcohol and drug treatment. Additional AFS contracts also provided center care for JOBS parents or were used to extend Head Start services.

The subsidy system in Texas was in transition during this period, as administration of assistance was devolved from the state to the local level. The state's 1995 welfare and work force reform legislation authorized the consolidation of most state job training, employment, and related support programs (including child care) under the newly created Texas Workforce Commission (TWC). It also authorized the creation of 28 local work force development boards (LWDBs), which would receive block grants from the state to administer locally most of these programs. In 1996, administration of subsidized child care services shifted from the Texas Department of Human Services to TWC, and local LWDBs began to assume responsibility for the management of existing contracts with local child care brokers (Child Care Management Services or CCMS agencies). By February 1999, 24 of 28 local LWDBs were managing their own CCMS contracts. These CCMS agencies served as the direct local administrative entities for the exclusively voucher-based child care subsidy assistance program.

Local Management Systems

State administrative structures are important, in part, because they determine the complexity of management systems at the local level. These local management systems, in turn, determine the ease or difficulty with which families can enter and remain attached to the subsidy system. Because these systems impose different burdens on different fami-

lies, they also influence whom the child care subsidy system will serve.

In this five-state sample, the complexity of the local application system varied with the division of responsibility between state agencies and with the use of single or multiple forms of assistance (see Table A.2.1). In the three states that administered assistance through the state welfare department (Illinois, Maryland, and Oregon), both TANF and non-TANF voucher recipients applied at the same local place. This was also true in Massachusetts, although TANF recipients needed to receive prior authorization at local welfare offices before proceeding to the child care resource and referral agencies responsible for voucher administration. In Texas, local areas were at different stages of the devolution of child care management to local work force boards. As a result of the evolving management changes, in some areas of the state intake for all families was consolidated at the local work force center; in others, families applied directly to the Child Care Management Services office for voucher assistance; in still others, TANF recipients applied for vouchers through the welfare office, while income eligible families applied through the local work force center.

Additional complexity arose in the three states that distributed subsidies through both vouchers and contracts. In Illinois and Oregon, families applied through one agency (the local welfare office or resource and referral agency) for voucher assistance and through the child care provider for contracted-care assistance. Massachusetts employed a similar dual system with the added complexity that most TANF recipient families were served with vouchers (obtained through the local resource and referral agency) while most non-TANF families entered through the contracted care system (by contacting the provider directly).

The ease or difficulty of obtaining (and retaining) subsidy assistance is also influenced by the structure of the application process. Three of the states in this sample allowed phone or mail application and recertification, thereby reducing the burden for new claimants as well as for families already in the subsidy system. Massachusetts required in-person initial application but allowed phone or mail recertification. In Texas, the availability of phone and mail application varied regionally.

In sum, state institutional arrangements and local management systems both reflect policy priorities and constrain service options. In this five-state sample, they varied from a single, voucher-based child care system with a single point of entry, to a dual system of voucher-based assistance for TANF clients and contracted care for non-TANF clients, to a regionally variable dual system for TANF and non-TANF clients. The complexity of the application process varied for different types of families across states such that families encountered different systems depending on TANF status in Texas and Massachusetts but different systems depending on type of subsidy assistance in Illinois and Oregon. Families' recertification burdens also varied across states, with, for example, TANF clients facing more frequent recertification requirements in Maryland but less frequent requirements in Texas (unless their TANF status changed).

Financing and Expenditures

State expenditures on child care subsidies are fundamental to the availability of assistance. The consolidation of categorical federal programs into the Child Care Development Fund, and the devolution of much child care and welfare policy, increased state options for funding child care. State choices regarding which funds to use, and how much to spend, largely determine how many families will be assisted and whether services will be rationed or available to all eligible claimants. This section compares the five states' investments in child care subsidies and discusses their implications for the formal rationing of subsidy assistance.

The devolution of child care and welfare policy provided states with new options for combining federal and state child care funds. During all or part of the period from 1997 to 1999, all of the states except Oregon transferred TANF funds to the CCDF in order to serve working poor families (see Table A.2.2). Illinois, Massachusetts, and Oregon funded child care subsidies directly with TANF funds, along with Title XX and state general revenue funds, beyond the required state matching grants for CCDF.

In all states in this study, expenditures on child care subsidies have grown substantially in recent years. The states varied tremendously, however, in their total investments in child care and in the rate of

Table A.2.2: Financing Structures and Expenditures, by State (1997 to 1999)

	Illinois	Maryland	Massachusetts	Oregon	Texas
Additional funds pooled with CCDF to provide subsidies	TANF funds; TANF funds transferred to CCDF; Title XX; Title IV-E; state funds	TANF funds; TANF funds transferred to CCDF	TANF funds; TANF funds transferred to CCDF; Title XX; state funds; child protective service funds; Title IV-E	TANF funds; Title XX; state funds	TANF funds transferred to CCDF; child protective service funds
Child care expenditures (millions)[a]	FFY 97 $336.5 FFY 99 $548.4	FFY 97 $72.3 FFY 99 $85.2	FFY 97 $256.3 FFY 99 $300.1	FFY 97 $54.7 FFY99 $70.9	FFY 97 $210.5 FFY 99 $358.2
Increase in expenditures 1997 to 1999	63%	18%	17%	30%	70%
Subsidy expenditures per poor child under 6 (1999)[b]	$1,416	$1,476	$1,527	$626	$385
Service rationing	Commitment to serve all eligible families	Waiting lists until October 1997, with no waiting lists after that date	Commitment to serve all TANF families; waiting lists maintained	Waiting lists only for participants in post-secondary education	Varied; waiting lists maintained by some local agencies during some parts of study period

[a] Source: National Study of Child Care for Low-Income Families conducted by Abt Associates, Inc. and National Center for Children in Poverty (for Illinois, Massachusetts, and Texas); Maryland Department of Human Resources.

[b] Expenditure estimates from National Study of Child Care for Low-Income Families conducted by Abt Associates, Inc.; population estimates calculated by National Center for Children in Poverty from the March Current Population Surveys, 1998-2000.

growth. Since state expenditures will vary with population, researchers compare total state and federal expenditures per child under age 13 living in a family with income at or below the federal poverty line. Expenditures—for federal fiscal years 1997, 1998, and 1999—included those earmarked for child care from all federal and state components of the CCDF, as well as those from federal and state sources that could, but did not have to be, used for child care.[31]

Subsidy expenditures per poor child were lowest in Texas and Oregon, despite large increases in funding in both states during this period. Texas had the steepest growth in spending among the five states, increasing child care expenditures 70 percent between 1997 and 1999. Despite the rapid increase in spending, Texas spent far less than other states per child: in 1999, Texas spent $385 on subsidized child care per poor child under age 13 in the state. Expenditures also increased steeply in Oregon (30 percent), but per child spending remained at $626 by 1999. Spending per poor child was higher in Illinois, Maryland, and Massachusetts. Between 1997 and 1999, spending grew by 63 percent in Illinois, and by 1999, the state was spending $1,416 per poor child under age 13. Maryland and Massachusetts started from relatively higher bases of spending in 1997 and each increased expenditures only 17 to 18 percent during this period. Although spending increased at a slower rate than in other states, spending per child was the highest among the states at $1,476 in Maryland and $1,527 per child in Massachusetts, five times greater than the level of spending in Texas.

Although state child care expenditures do not tell the whole story of service availability, they capture the most fundamental constraint. As such, they mirror the levels of states' commitment to serving all eligible families. Illinois, where spending per poor child was relatively high, had made a formal policy commitment to serve all eligible families in the state who apply. In another high-spending state, Maryland, in fact, all eligible families who applied for services were served. In Oregon, which spent much less per poor child, the state had made a commitment to serve all families in short-term employment services designed to deter welfare use or move recipients from welfare to work, but assistance for income-eligible families (i.e., those outside the welfare system) was not widely advertised. Massachusetts was committed to serving all TANF families and continued vouchers for eligible former TANF families through its transitional and post-transitional programs. Although all families participating in the TANF Choices program in Texas, another low spending state, were guaranteed a child care subsidy, income-eligible families

Table A.2.3: Child Care Regulations

	Illinois	Maryland	Massachusetts	Oregon	Texas
Number of children allowed in family child care (non relative) without licensing or regulation	3	0 (unless care is provided less than 20 hours per month)	0	3	3
Requirements for family child care providers (through licensing or subsidy rules)	Criminal record and child abuse registry check (licensed providers only)	Criminal record and child abuse registry check	Criminal record and child abuse registry check; home inspection, health and safety training, child development training	Criminal record and child abuse registry check; self-certification of health and safety	Criminal record and/or child abuse registry; child development training
Requirements for relative care	Self- certification of criminal background, child abuse background, health screening, home safety inspection; child abuse registry check (2/99)	Self-certification of health screening, immunization, home safety inspection	Self-certification of child abuse, criminal background, health screening, home safety inspection	Child abuse registry and criminal background check; self-certification of health and safety	None
Limitations on use of in-home care	No explicit policies to limit	None	None	Treated the same as family child care; provider is considered self-employed for tax purposes	Limited to relative care
Requirements for in-home care	Self- certification of criminal background, child abuse background, health screening, home safety inspection; child abuse registry check (2/99)	None	None	Criminal record and child abuse registry check; self-certification of health and safety	None

outside the TANF system were routinely placed on waiting lists until December 1998.[32]

Child Care Regulation

In addition to setting policies governing access to child care subsidies, states establish and enforce policies regarding the types of care to be subsidized and minimum levels of quality to be provided. States regulate the type and quality of care arrangements for subsidy recipients through child care regulations that affect all care arrangements in the state and through subsidy rules that affect only those providers receiving subsidies. These rules directly influence the child care options for parents in the subsidy system. To the extent that the type and quality of care available to parents influences whether and for how long they receive subsidies, these rules may also influence patterns of subsidy participation and the characteristics of families served.

All states restricted use of center-based care to regulated providers. Oregon allowed families to use unlicensed centers as long as they were legal.[33] Rules for family child care were more diverse (Table A.2.3). In Massachusetts, all family child care was subject to regulation, as was care in Maryland unless care was provided for fewer than 20 hours per month. In contrast, Illinois and Oregon did not regulate family child care homes serving three or fewer children (although providers could elect to become regulated). In Texas, providers of three or more children were required to register. State regulations also varied in the requirements imposed on family child care providers, through licensing and subsidy rules. In all states, providers were formally screened for child abuse and/or criminal histories. In Texas and Massachusetts, providers were also required to have child development training. Massachusetts imposed additional requirements for home inspections and health and safety training. Oregon paid enhanced rates to

Although state child care expenditures do not tell the whole story of service availability, they capture the most fundamental constraint. As such, they mirror the levels of states' commitment to serving all eligible families.

unregulated providers who completed 15 hours of specified training.

Informal care by relatives was also monitored to varying degrees across the states. Texas exempted relative caregivers from all health and safety requirements; Maryland and Massachusetts required only self-certification of health screening, immunization status, and safety inspection. Both Oregon and Illinois subjected relative caregivers to child protective services and/or criminal background checks.

Cross-state variation was particularly great in the treatment of in-home providers (unrelated individuals providing care in the parents' home). Rules governing this form of care are complicated by the provisions of the Fair Labor Standards Act (FLSA), which hold employers (in this case, parents) responsible for paying employment-related taxes. In Illinois, the FLSA was interpreted as creating no restrictions on the use of in-home, nonrelative child care, and these providers were subsidized in the same fashion as other unregulated providers. In Oregon, the state Attorney General rendered an opinion that in-home, nonrelative providers were not state employees, but rather employees of the families who were therefore responsible for their payroll taxes. In Texas, parents were prohibited from using in-home, nonrelative providers. In-home providers were subject to criminal record and/or child abuse registry checks only in Oregon.

Endnotes

1. Data for Oregon cover the period of October 1997 through September 1999; data for Massachusetts cover October 1996 through September 1998.

2. Data were available for the city of Boston, the diverse suburbs west of the city (e.g., Cambridge, Chelsea, and Somerville), and a number of smaller metropolitan areas (i.e., Springfield/Chicopee/Holyoke, Lowell, and New Bedford/Falls River), as well as rural areas of Hampden, Bristol, and Plymouth counties.

3. For Illinois and Maryland, all observed (nonleft censored) spells for the randomly selected child were used in the analyses of spell length.

4. The temporary increase in the 'age of child' exemption reflected concerns in the Texas legislature that child care funds would not be sufficient if the 'age of child' exemption was set at age three.'

5. Most copayment formulas also adjusted for family size. Maryland included additional adjustments for local child care costs and type of care used.

6. Maryland is excluded from this exercise because copayments vary by geographic region.

7. In Illinois, Maryland, and Oregon, provider payment rates were raised during the observation period for this study. This discussion references the earlier, lower payment rates under the assumption that these influenced subsidy dynamics during most of the study period. In states where payment rates varied regionally, the rates in the highest cost area of the state are reported.

8. Note that in-home care in Texas is restricted to relatives.

9. Income measures varied across the states due to differences in data availability. See Appendix 1 for information on the construction of measures.

10. Texas income may be underestimated due to measurement issues. See Appendix 1 for further details.

11. Some 22 percent of subsidy-recipient families without TANF or employment income were actually deemed TANF-eligible although they were not receiving TANF at the point of observation due to discrepancies between the time periods in child care and welfare data systems. Another 5 percent were receiving transitional child care (which required employment), but the employment was of the type that was not recorded in the unemployment insurance wage system.

12. Because spells of subsidy receipt for which the first month could not be observed (i.e., those in process in the first month of the observation period) were deleted, very long spells of subsidy receipt might have been under-represented in the analysis samples. Estimates of children's ages based on these non left censored samples may therefore be biased downward. Given that spells of receipt were generally very short, however, this bias should be minimal.

13. Because child care regulations varied across the states, "regulated" care does not denote a consistent category in all states. More detail is provided in Appendix 2.

14. For families without a copayment, the net value is assumed to be the monthly payment to the providers.

15. The net value of assistance is higher for Massachusetts families with a copayment than for all families in this state. This is due to relatively high reimbursements made on behalf of the small sample of families who had a copayment.

16. For example, due to low TANF benefits, families who might have mixed welfare with work in other states were likely to be ineligible for welfare and entirely reliant on low wages in Texas.

17. The use of center-based care has historically been higher among low-income families in the South than in other parts of the country.

18. For Illinois and Maryland, all observed (nonleft censored) spells were used in the analyses of spell length.

19. Note that these first and second spells observed in the data may not have been the child's first and second spells ever.

20. Note that due to the shorter observation period, we are unable to calculate durations at the 75th percentile for the two one-year periods. Recall that the observation periods in Massachusetts and Oregon differ slightly.

21. This is likely to overestimate stability for some children, since the child care provider was defined as the billing entity. Children who were in center-based arrangements may have experienced multiple individual providers while they were in one setting. Children may also experience multiple providers because they are in multiple care arrangements.

22. Note that caution must be exercised even in comparing "similar" families across states because of differences in policies and populations. For example, Texas families who are working and not receiving TANF may differ from working, non-TANF families in another state because differences in eligibility thresholds, benefit levels, and earnings disregards affect who is eligible for TANF and who participates in different states.

23. Queralt, M.; Witte, A. D.; & Griesinger, H. (2000). Changing policies, changing impacts: Employment and earnings of child-care subsidy recipients in the era of welfare reform. *Social Service Review*, 74 (Dec), pp. 588–619.

24. See, for example, Meyers, M.; Brady, H.; & Seto, E. (2000). *Expensive children in poor families*. San Francisco, CA: Public Policy Institute of California.

25. Data for Oregon cover the period of October 1997 through September 1999; data for Massachusetts cover October 1996 through September 1998.

26. Witte, A. & Queralt, M. (1999). *Duration of subsidized child care arrangements in five areas of Massachusetts*. Wellesley, MA: Wellesley Child Care Research Partnership, c/o Wellesley College, Department of Economics, and Witt, R.; Queralt, M.; & Witte, A. D. (1999). *Duration of subsidized child care enrollments in the Birmingham areas of Alabama*. Wellesley, MA: Tri-State Child Care Research Partnership/Wellesley Child Care Research Partnership, c/o Wellesley College, Department of Economics.

27. A small number of observations in Oregon were coded as "other" and are large family child care homes called "group homes" in Oregon.

28. As noted above, all observed spells from the randomly selected child were used in the analyses of spell length for Illinois and Maryland.

29. Children served through CPC programs are included in the total number of subsidized children served in Massachusetts. Since April 1999, these children have been part of the state's ACF-801 reports to the U.S. Department of Health and Human Services, Administration for Children and Families, on children served by the federal Child Care and Development Fund. Also, prior to July 1998, responsibility for child care quality initiatives was in a fourth state office, the Office for Children. This responsibility, too, was transferred to OCCS.

30. The sample of Massachusetts children in this study represents about 25 percent of all the state's subsidized children and about 50 percent of the children served through vouchers.

31. CCDF sources dedicated to child care included federal mandatory, matching, and discretionary funds and state maintenance of effort (MOE) and matching funds. Some dedicated federal funds were also carried over from earlier years' allocations of the Child Care and Development block grant. Optional federal sources included the TANF block grant (funds transferred into the CCDF and funds spent directly); the Social Services Block Grant (Title XX); and Title IV-E. Optional state sources included TANF/Child Care MOE and separate state programs MOE (amounts above those counted toward the CCDF MOE); general revenue funds; and state appropriations specifically for child care for children in protective services or foster care. For more complete descriptions of these federal and state sources, see Collins, A. M.; Layzer, J. I.; Kreader, J. L.; Werner, A.; & Glantz, F. B. (2000). *National Study of Child Care for Low-Income Families, State and Community Substudy, interim report*. Cambridge, MA: Abt Associates, Inc., Figures 2–4 and 2-5, pp. 24–25.

32. A policy change in December 1998 loosened the eligibility requirements that had previously restricted some child care funds only to Choices and transitional benefits-eligible recipients. This resulted in a temporary increase in funding for non-TANF-related care that eliminated waiting lists in those areas that had waiting lists. After a few months, waiting lists in some areas of the state began to form again for non-TANF-related care.

33. Oregon families receiving subsidies can use license-exempt centers if those facilities are not required to be licensed (e.g., programs that operate for less than four hours a day or operate in a public school or college). These facilities are license exempt but must meet "purchase of service" regulations that include self-certification of health and safety standards, and criminal records and child abuse registry checks.

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